# The NATIONAL GEOGRAPHIC MAGAZINE

Vol. XVII JANUARY, 1906 No. 1

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# THE NATIONAL GEOGRAPHIC MAGAZINE

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VOL. XVII, No. 1 WASHINGTON JANUARY, 1906

THE NATIONAL GEOGRAPHIC MAGAZINE

# GEOGRAPHICAL EXPLORATION: ITS MORAL AND MATERIAL RESULTS*

BY GENERAL A. W. GREELY, U. S. A.

CHIEF SIGNAL OFFICER

THE spirit of human endeavor has found few fields more fruitful in sequential results than that of geographical exploration. As far as may be possible, in the brief period allotted for this address, an endeavor will be made to present the more important results, not only as regards its material aspects, but also as connected with its moral tendencies.

The branches of geography now treated are confined to economic, physical, and political phases to the exclusion of bare outlines of land and water distribution and mathematical demonstrations. It is not the mere explorer that engages our attention, but rather the pioneers and settlers, whose close, persistent, practical studies and labors along agricultural, biological, and mineralogical lines have made known the vast resources of the earth for useful exploitation by the masses.

The growth, development, and ultimate limitation of nations are largely influenced if not entirely due to geographical environment. The location of great centers of agriculture and commerce, of special industries, mining and stockraising, is the outcome of careful explorations of the special economic resources on which their success depends.

It is of interest to note that the necessity and beneficence of explorations are set forth in the earliest recorded history. We read in the Old Testament:

"Now the Lord had said to Abraham: Get thee out of thy country, and from thy kindred, and from thy father's house into a land that I will show thee, and I will make thee a great nation, and I will bless thee, and make thy name great."

The prophecy to Abraham outlines the means whereby a great nation was created. Similar results have been not infrequent in the world's history of explorations, whether applied to the Romans, to the Spaniards, or to the Anglo-Saxons. Through such potent

*An address delivered at the Tenth Celebration of Founders' Day at the Carnegie Institute, Pittsburg, Pa., November 2, 1905.

agency has come the migration of nations; the transfer of power, whether economic, industrial, or political; the development of mankind, and the growth of civilization.

The work of geographical explorations has usually passed through three distinctive phases: First, commercial purposes; second, advancement of knowledge; third, scientific explorations. Prolific as have been the earlier stages, it is the last named which has been the most potent force in the development of America, especially in the past, and which is so rapidly changing Australia and Africa at the present time. All and any of these methods have been, it is believed, fully successful only as far as there have been conjoined therewith moral forces as adjuncts to physical efforts.

In his quaint history of Muscovia, the immortal Milton, passing beyond the common features of geography—as to mountains and rivers, as to longitudes and latitudes—argued that its higher scope included broad phases of earth conditions and human relations well suited for the efforts of a learned and judicious mind. It is notable that with his high ideals the blind poet, clearly discerning moral relations, sharply discriminated between exploration for gain and that for nobler purposes.

Following afar this great master of English speech and forceful fashioner of human thought, it is well to make clear the essential points.

As material results are classed those where the outcome is mainly pecuniary and physical, most frequently in the form of commercial or industrial exploitation, in mining gold, silver, or copper, etc. The moral results are associated with the generous assimilation and liberal development of discovered regions, under conditions whereby the civilized world benefits in the aggregate, and primitive folk are raised higher in the scale of humanity. In such cases the natural resources of the country and the mental activities of the people are made to increasingly subserve the new regions involved and by reaction similarly improve the rest of the world. Intelligence, justice, temperance, tolerance, fair dealing, and educative methods along the higher moralities are essential qualities of the true explorer. Their practical and successful application is an important factor in the evolution from uncivilized materials of a modern state, so as to justify its admission to international comity.

We will now consider failures, satisfactory results, and striking successes, especially along moral lines.

### THE POLO BROTHERS

Probably the greatest failure to utilize geographical exploration of an epoch-making character is that associated with the journeys of the Polo brothers. Not only did material interests suffer from closing for five centuries and more commercial traffic across densely populated Asia from the Mediterranean to the China Sea, but its high moral possibilities were absolutely neglected. The three Venetians, through years of service, attained great power and influence at the court of Kublai Khan, the great emperor of China. Inspired with a desire to displace Confucianism, Kublai Khan commissioned, on their departure, the Polos as messengers to ask the Pope to send missionaries to his people. Ecclesiastical quarrels then engrossed all Christendom, the Grand Lama intervened with Buddhism, and later Islamitic proselytism closed China to western influence for centuries. It bewilders one to imagine the potent changes which six centuries of Christianity as a state religion might have wrought in the Chinese Empire.

### THE EARLY DUTCH EXPLORERS

During the sixteenth century the Dutch were scarcely second to Spain in their geographical explorations, which were so successfully pursued that some of the richest and most populous lands fell under their sway. Commercial exploitation, pure and simple, was the Dutch policy. Of all peoples they stood for political and religious freedom, making therefor sacrifices of life and treasure scarcely surpassed in the history of the world. The Dutch have given unusual care to the technical training of their civil servants, but do not appear to have displayed an equal religious solicitude for their colonies and for domestic affairs. In dealing with Java they have ignored the higher moral questions and adopted restrictive policies, thus failing to make Dutch East Indies an important factor in the world. Measured by the high ideals of this century, the moral results are meager and unsatisfactory, though Netherlands yet controls the Javan Archipelago and its thirty millions of natives.

### THE GLORIOUS GEOGRAPHICAL HISTORY OF SPAIN

Marked though it has been by faults largely those of the ages, the geographical history of Spain is glorious to the highest degree, whether measured by its material or moral results. With the discoveries of Columbus and the world circumnavigation of Magellan, modern geography was born. Indefatigable in purpose, unsurpassed in bravery, unyielding in religion, but deferential to racial prejudices, gracious in manner, and courteous in speech, Spanish explorers made an indelible impress from one end of the earth to the other. In the Antilles or South America, in Mexico or the Philippines, they thoroughly implanted their customs and ideals, their administration and religion, their laws and language. The Spanish civil law, whose first Mexican code antedated by half a century any English settlement in the United States, is today, in pure or modified form, second as to area and population only to English law, while the melodious language of Spain is the daily speech of nearly triple its home population. In the aggregate the Spanish explorer, by extending the sway of law over, and instilling Christianity into the hearts of the natives of new lands, has exerted a more potent moral influence than has any other nationality.

Of all explorations none appeared at the time richer than those of Portugal, from Prince Henry, the Navigator, to Diaz and Vasco da Gama; yet they were morally perverted. The coasts of Africa were circumnavigated and exploited and the trade of India made attainable by sea. Pope Alexander the VI, by the famous demarcation bull of May 4, 1493, confirmed the possession of the eastern half of the newly discovered world to Portugal, which at once rose to commercial supremacy and the height of its material glory. But traffic was the sole aim, and the African slave trade a most essential factor in its profits. During four centuries Portugal was distinctly foremost in this human traffic, which by its horrors and immoralities has not alone outraged the spirit of Christianity, but has also, particularly in America, produced conditions vexatious and portentous to an alarming degree.

### DAVID LIVINGSTONE AND STANLEY AFRICANUS

Let us turn to a brighter phase of African history, wherein the geographical explorations of a single man, David Livingstone, produced moral results of the highest value. In golden words Stanley pointed out that the track of Livingstone's explorations

form on the map of Africa the shape of our Saviour's cross.

In these journeys Livingstone impressed the spirit of that symbol on the people of Africa, and, ever scattering the words of the Master and patterning his life thereafter, exerted an unsurpassed moral influence on hundreds of thousands of men, and so made the first rift in the ignorant barbarism of a Dark Continent.

The black slab in Westminster Abbey recites the heroic story:

"For thirty years his life was spent in an unwearied effort to evangelize the native races, to explore the undiscovered secrets, and abolish the desolating slave trade of Central Africa."

Of Stanley Africanus, as I call him, his African explorations in their potentialities are second alone to those of Columbus. From Stanley's labors have come wondrous results; commerce and religion form beneficent settlements; slavery disappears gradually; inter-tribal wars cease; industries spring up, and there is peacefully organized a vast tropical empire, the Congo Free State, "a civilizing center in the heart of Africa," potential in its possibilities of moral and material development.

### THE COMMERCIAL PROFIT FROM ARCTIC EXPLORATION

I have been asked to say a few words regarding the scope and results of Arctic explorations, to which many attach a moral value, while mistakingly, at least as to its past, considering it to be pecuniarily unprofitable. In material results the aggregate value exceeds twelve hundred millions of dollars. Most important are the American whale fisheries, three hundred and thirty-two millions from 1804 to 1876, and the Dutch fishery, 1677 to 1778, over one hundred millions. In lesser order of values follow the British fishery, the fur trade of northeastern Siberia, the fossil ivory of the new Siberian Islands, and the Alaskan seal and fur products.

Turning to the interrelated moral and material outcome, may be cited the northeastern Arctic voyage of Chancellor, who set out, to quote Hakluyt:

"Either to bring that to pass which was intended, or to die the death."

Of this expedition Milton wrote:

"The discovery of Russia by the Northern Ocean might have seemed an enterprise almost heroic if any higher end than excessive love of gain and traffic had animated the design."

### THE GREELY EXPLORATIONS

There was, however, a moral result not foreseen by Milton. It is not alone that this exploration was the beginning of England's mighty maritime power and her commercial supremacy, it initiated the freedom of the seas as highways, it strengthened international comity, then in its infancy, it cultivated the spirit of patriotism and elevated the sense of national self-respect.

I speak hesitatingly of my own Arctic work, which was primarily devoted to scientific observations, being one of the fourteen international stations occupied from 1881 to 1883. In field work it added 6,000 square miles to our knowledge, and took the honors of the Farthest North, held for three hundred continuous years by England.

Retreating 400 miles south in 1883, according to orders, we wintered at Cape Sabine, where shipwreck and mismanagement of the home authorities left the party without supplies. In 1884 the seven remaining men were rescued by the relief expedition of our navy.

Of the work and the men I can say nothing new, in this twenty-fifth year since the inception of the Lady Franklin Bay expedition. By arduous labor, heroic endurance and unflinching fortitude they advanced our national ensign to an unparalleled latitude on both

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sea and land; they carried out fully the international program of scientific observations, increasing largely our knowledge of the physics of Arctic regions; by a boat voyage of hundreds of miles they brought through a dense polar icepack their complete records, at the price of bodily suffering and diminished chances of life. Finally they so comported themselves that under most untoward, prolonged and desperate circumstances, their courage, discipline and subordination were almost invariably maintained. As a result the unity of the command continued through nine months of continuous hunger, and five months of polar cold and Arctic darkness. Such moral qualities are the bases of fidelity and honor, so that perhaps it is not too much to say that the work they wrought, the courage and devotion they showed, may long live in the memories of men.

RECENT GEOGRAPHICAL PROBLEMS

It is needless to here outline the explorations by English, French, and Americans, which have led to the evolution of civilization in North America. They are well known parts of our history. Cartier, Hudson, Champlain, Allouez, Joliet, Marquette, Iberville, La Salle, Tonti, Hennepin, Carver, Gray, Mackenzie, Lewis, Clark, Pike, Long, and others were the pioneers.

The material results on the continents of America alone are so vast as to defy summary. Suffice it to say that they now involve twenty-two nations, 150,000,000 population, and various forms of wealth that aggregate many billions of dollars.

In the last half century other geographical problems have been settled with constantly increasing efficiency by Canadian and American scientists. Their explorations are not alone in finding agricultural, forestal and mineral resources, but also in connection with the characteristics of plant and animal life, together with the properties of climate and soil affecting their competitive life-struggles and successful evolution.

That the moral results of political geography are keeping pace with material advancement, and that there are corresponding uplifts in the life of the masses yearly entering our national domain, I cannot clearly discern though looking optimistically to the future.

Marked though the phases of geographic evolution have often been in America by disregard of the rights of aboriginal tribes and at the expense of their development, yet the final outcome has been for the benefit of mankind in general. This is especially true as to the spirit of Individual freedom, which, crossing the Atlantic and permeating the despotic strongholds, today re-echoes and chronicles joyfully the birth of a new nation—Russia—self-assertive, intensely violent, but ultimately to be self-respecting and self-governing.

# THE FLORIDA KEYS

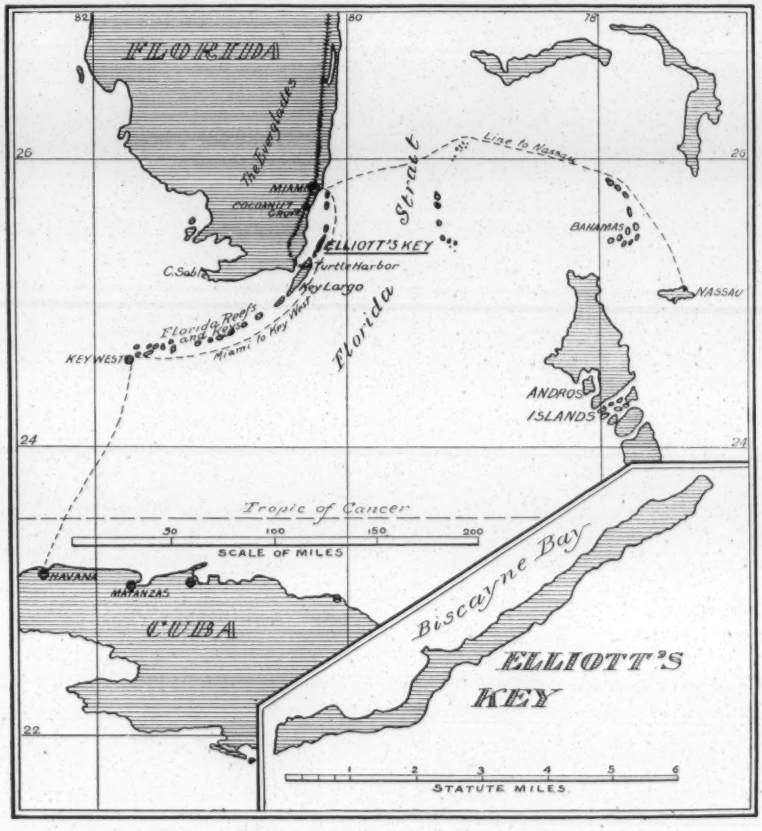
By John Gifford

EXCLUDING of course our distant tropical island possessions, there are three tropical regions in the United States. One is along the Colorado River, in the neighborhood of Yuma; another is the southernmost part of Texas, near the mouth of the Rio Grande, and the other, which is by far the most extensive and attractive, is the southernmost part of the peninsula of Florida.

Florida, like a great finger fully 400

miles in length, points to the fertile regions beyond which are awaiting American capital and enterprise.

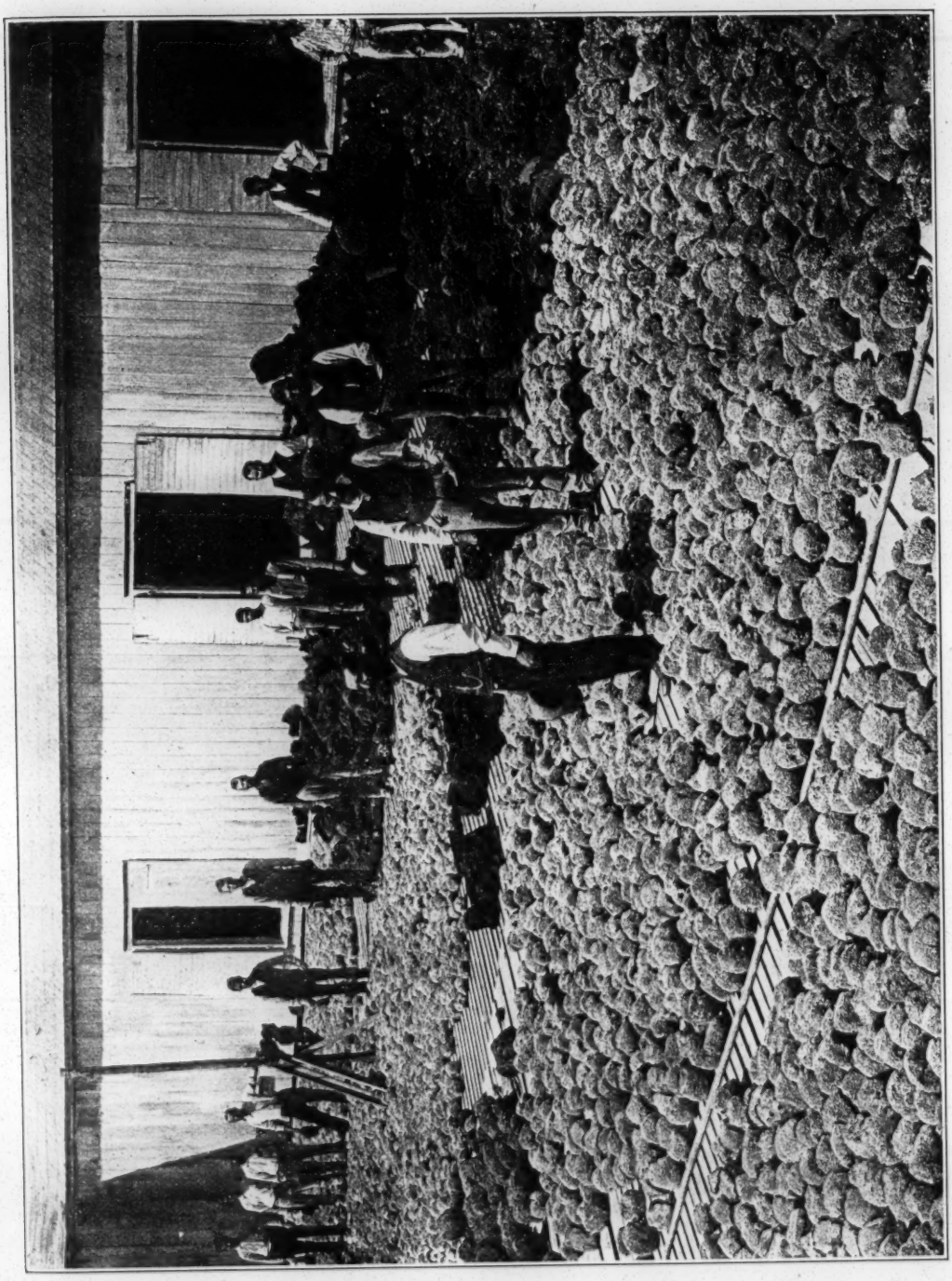
Of this extensive part of Florida, most of which is till unreclaimed and even unexplored, the islands or keys which extend from the neighborhood of Miami in a curved line southwestward to and beyond Key West are the most tropical and attractive.




Map of South Florida

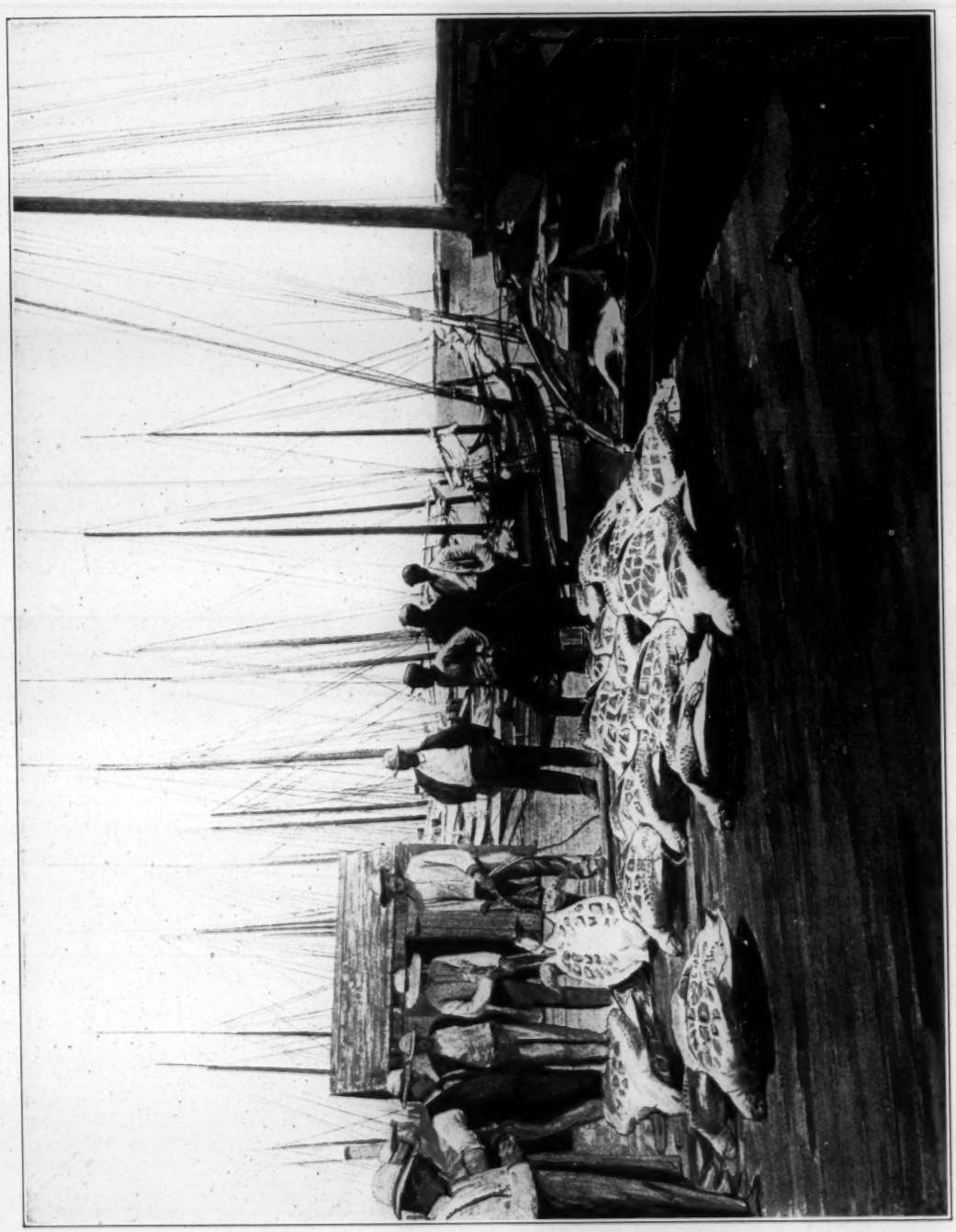
The extent and possibilities of tropical Florida are only realized by those who have spent much time and effort in its exploration. If the island of Porto Rico were to be placed over the Everglades, much land would still be left around the edges. To find a beautiful grove of royal palms on the southern edge of these Everglades is a sample of the kind of surprises one is liable to meet with in this peculiar country.

It is of interest to note that on a journey from New York to the Florida keys by rail one is only two-thirds of the distance when he reaches Jacksonville. It is of interest to note also that this comparatively small patch of land in south Florida is the only truly tropical land which can be reached by rail easily and quickly from the eastern part of the United States. It is indeed



From John Gifford

Sponges Drying on the Wharf at Key West



From John Gifford

Green Turtle on the Wharf at Key West

a wonder that when cold weather comes this region is not completely overrun with people. The Florida keys are so peculiar and different in every way from any other part of the United States that the traveler who has never been there may rest assured that there is still one novel and enjoyable experience in store for him.

These little islands or keys set in waters of many colors, about which cluster legends of pirates, wrecks, and treasures, will soon be closely linked together by the railroad now in process of construction. They will soon no doubt be as thickly populated and as carefully cultivated as are the Bermudas. Although these keys have been more or less cultivated for many years and have produced enormous quantities of pine-apples, limes, bananas, and other fruits and vegetables, the natives or "Conchs," as they are called, who came from England via the Bahamas, have devoted themselves mainly to wrecking, sponging, and fishing.

There are at least 50 of these islands or keys which are inhabitable and productive, and hundreds, perhaps thousands, of smaller ones of little or no value at present, but which may some day be elevated and improved. These keys extend a distance of 165 miles from Miami to Key West. Twenty miles farther to the west are the Marquesas keys, and still 50 miles farther are the Dry Tortugas. Sand Key, a small island south of Key West, on which a light-house is located, is the most southern point in the United States. Key West is about 100 miles from Havana, while Miami is about half that distance from the Biminis Islands of the Bahamas, the nearest foreign territory. Key West has long been recognized as an important military and naval as well as commercial base.

Key Largo is the largest of the keys. It is 30 miles long and varies from about a quarter of a mile to two miles in width. The post-office on this key is located at a small Conch settlement called Planter.

The railroad after leaving Miami, which has been for several years the terminus connecting with boats for Key West and Havana and Nassau, passes through rocky, pine-covered land, through dense tropical hammocks, through everglades and muddy mangrove swamps across a tongue of land or mangrove-covered mud to Key Largo. The railroad is now in process of construction on this key. It passes down the center of the island through a thick tropical jungle or hammock, where mahogany is as common as maple in New York, by fields of pine-apples and groves of limes, and by the houses of the natives, which are located on the ocean side and are surrounded by cocoanut palms, sapodilla trees, sugar apples, bananas, and other tropical fruits and vegetables.

In passing from key to key, this interesting railroad will probably cross as much water as it does land. There will be miles of bridges and many draws, because the creeks separating these keys are in several instances wide and much used by sponging, fishing, and pleasure craft. The road must be high to escape the waves, and the journey from Key Largo to Key West, a distance of over 100 miles, will be like a trip at sea, with the broad Gulf of Mexico on one side and the straits of Florida on the other. In spite of water and mud, stiff currents, storms, dense jungles, rough coral rock, and millions of mosquitoes, the work is being pushed. To one who is familiar with the region it appears an impossible task; but money and engineering skill accomplish wonders, and already machinery, barges, house-boats, water-boats, tons of cement, timber, laborers, mosquito-netting, and insect powders

are being rushed to the scene of action. That this road is to be built quickly there can be no doubt. Hustling in the close jungle in the summer time in the midst of clouds of pungent smoke from the burning hardwoods to keep the mosquitoes from devouring one alive is not an enviable job.

In not more than five and probably not less than three years Key West will be the most southern railroad terminus in the United States. With a deep harbor it will soon develop into

"On Elliott's Key"

a metropolis of great importance from many standpoints. The time to Havana, Panama, and Central America and Mexican ports will be considerably shortened and many Spanish-American buyers who now go to Havana will come to Key West, and northern firms will establish there offices and showrooms and warehouses to meet this trade. It is already the center of a big cigar business, with a pay-roll of $40,000 a week, every cent of which is soon put into circulation again. It is the center of our sponge industry, which employs a fleet of 150 vessels. It is a point of call for many passing ships, and besides the regular steamship lines which stop there, sailships run to the Bahamas, Cuba, Bonaca, Caymen, and to other out-of-the-way places. It is a place where many ships come to be repaired and where the affairs of many ships which are wrecked upon these dangerous reefs are finally adjusted. It is a dirty, unattractive city with a large proportion of negroes and Cubans in a population of about 20,000. It is said by those who are well informed that this island of about 1,000 acres will have a population of over 100,000 in less than ten years.

There are no roads on these keys. People visit and go to school and church in boats. Although these people are very pious, church is postponed if a wreck is on.

When there is nothing doing on the sea they cut the hardwood timber on a patch of land and burn it. In the ashes they plant pine-apples. No fertilizer is used, and after a few years the field is abandoned and allowed to come again in forest.

The soil is mostly solid coral rock, in places broken, and in the hollows there are patches of rich red soil and humus, in which bananas and vegetables grow with great luxuriance in mid winter. There are many fruits, but the one the Conch loves best is the sapodilla. This tree grows almost wild and bears an enormous amount of fruit. From the juice of the green fruits of this tree "chicle gum," the basis of chewing gum, is manufactured and shipped in immense quantities to this country from Mexico. The Conchs call this fruit "dilly" for short. In the woods there is a so-called "wild dilly,"

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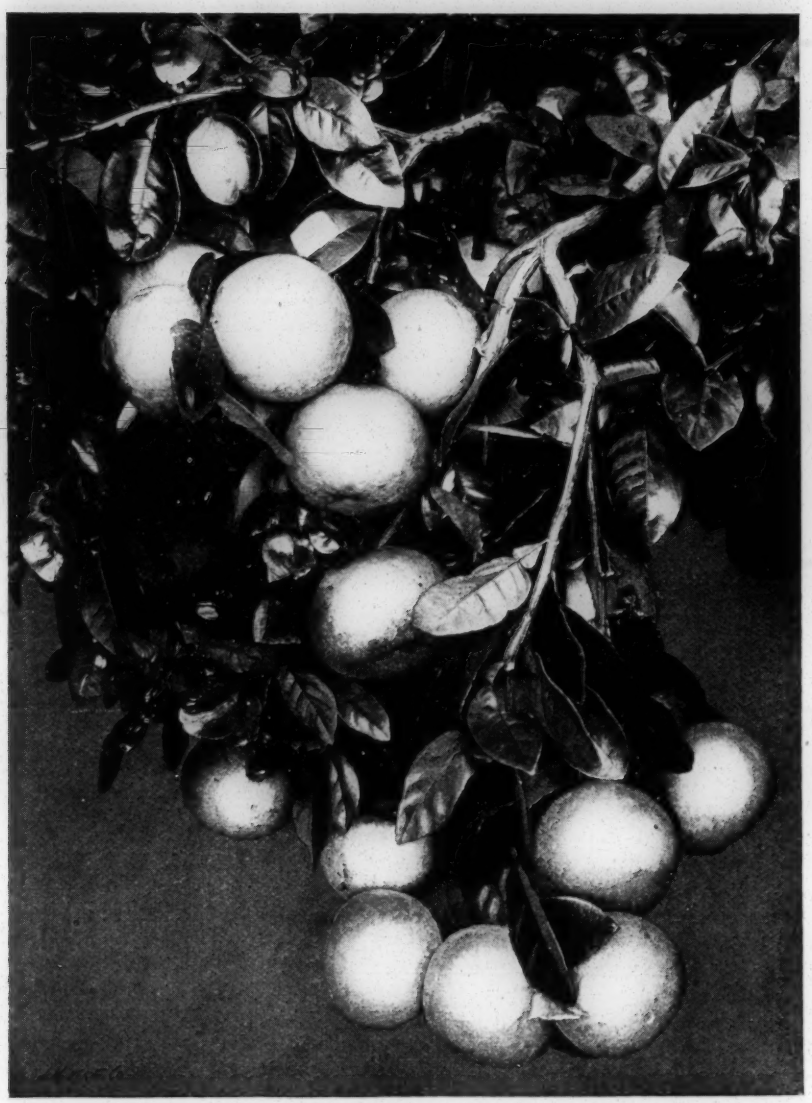


The Grape Fruit or Pomelo

There are extensive lime groves on the keys. On this stock the Pomelo thrives

a close relative to the famous South American tree which yields the valuable balata gum of commerce. It is here where vanilla will grow and perhaps coffee and many other tropical things which have never been tried. On his plantation on Elliott's Key the writer has picked in one day cocoanuts, bananas, limes, pine-apples, papaws, sapodillas, sugar apples, sweet potatoes, tomatoes, egg-plants, and peppers

On the Mainland of Biscayne Bay, at Cocoanut Grove

(1) In the hammock. (2) A mangrove swamp. (3) Shows the character of wall built of coral rock. (4) Drilling a hole in the coral rock to blast a hole for a grape-fruit tree. (5) Seminoles coming in from the Glades with venison; shows also a rock road. (6) A thrifty camphor tree.

Old Plantation on Elliott's Key

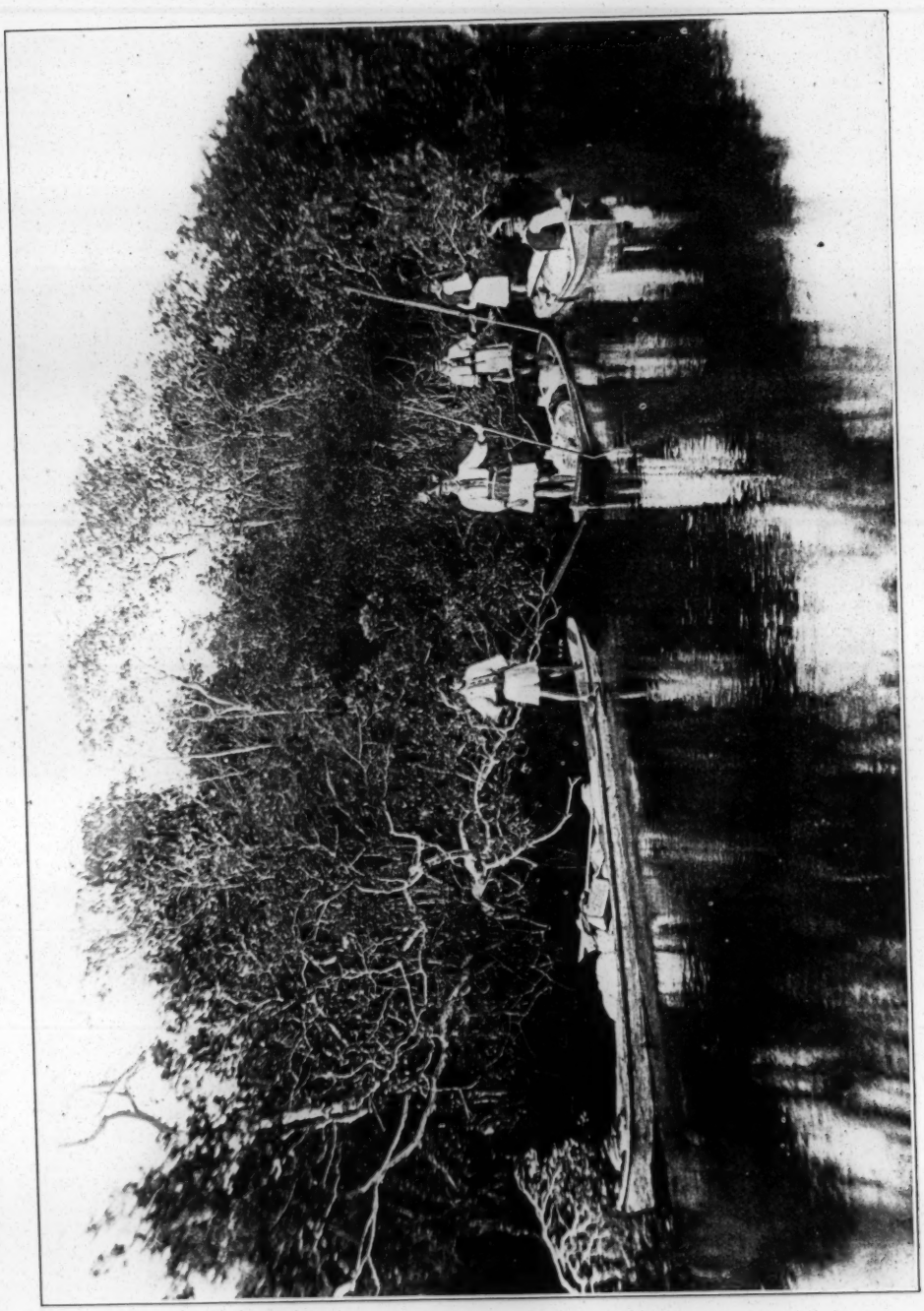
Along the shore on the ocean side there are coral sand, masses of broken coral fingers, shells, sponges, and the flotsam and jetsam which is carried hundreds of miles from the coasts of South and Central America. Great floating islands from the mouths of tropical rivers are wafted northward by the Gulf Stream. They are broken into bits by its choppy waves and are piled upon the shores of the keys. This flotage, including lumber and wreckage, forms an interesting museum, so that beachcombing is an exciting and often profitable pleasure. The vegetation of this region is like the Bahamas, western Cuba, and the Yucabecan Peninsula. Besides many tropical plants like the cocoanut palm, which encircles the earth, there is the cocobola, pigeon plum, blackwood, fiddlewood, blolly, satinleaf, mastic, red bay, lancewood, ironwood, stopperwoods, nakedwood, cocoaplum, wild tamarind, princewood, gumbo limbo, wild rubber, torchwood, lignum-vitæ, mahogany, and many other species which are little known.

These islands are not much above sealevel, but are so rocky and solid that one never feels in danger of being washed off. They are protected by a line of reefs which breaks the force of the waves. These reefs come very close to the surface and are exceedingly dangerous. When a ship runs ashore, which happens often in spite of many light-houses and beacons, the Conchs for miles around know of it in a mysteriously short time, and indeed it is a gruesome sight to see a great ocean liner like the *Alicia*, which was wrecked recently, loaded with precious stuff from Bilboa for Havana, hopelessly aground and surrounded by a solid mass of white-winged wreckers. In the early days it was loot and lark; today it is somewhat organized and regulated. Between the reefs and keys there is a stretch of water called the Hawk Channel. This is the most ideal sailing ground imaginable. Usually a brisk wind blows, the sea is seldom rough, the water is of every color and teeming with life, and here and there are sea gardens of wonderful beauty and interest. If one gets caught in a doldrum here he can spend hours pleasantly and profitably watching the sponges, corals, bright-colored fishes, and other curious sea forms through a water glass. It would be difficult to find a pleasanter spot in midwinter.

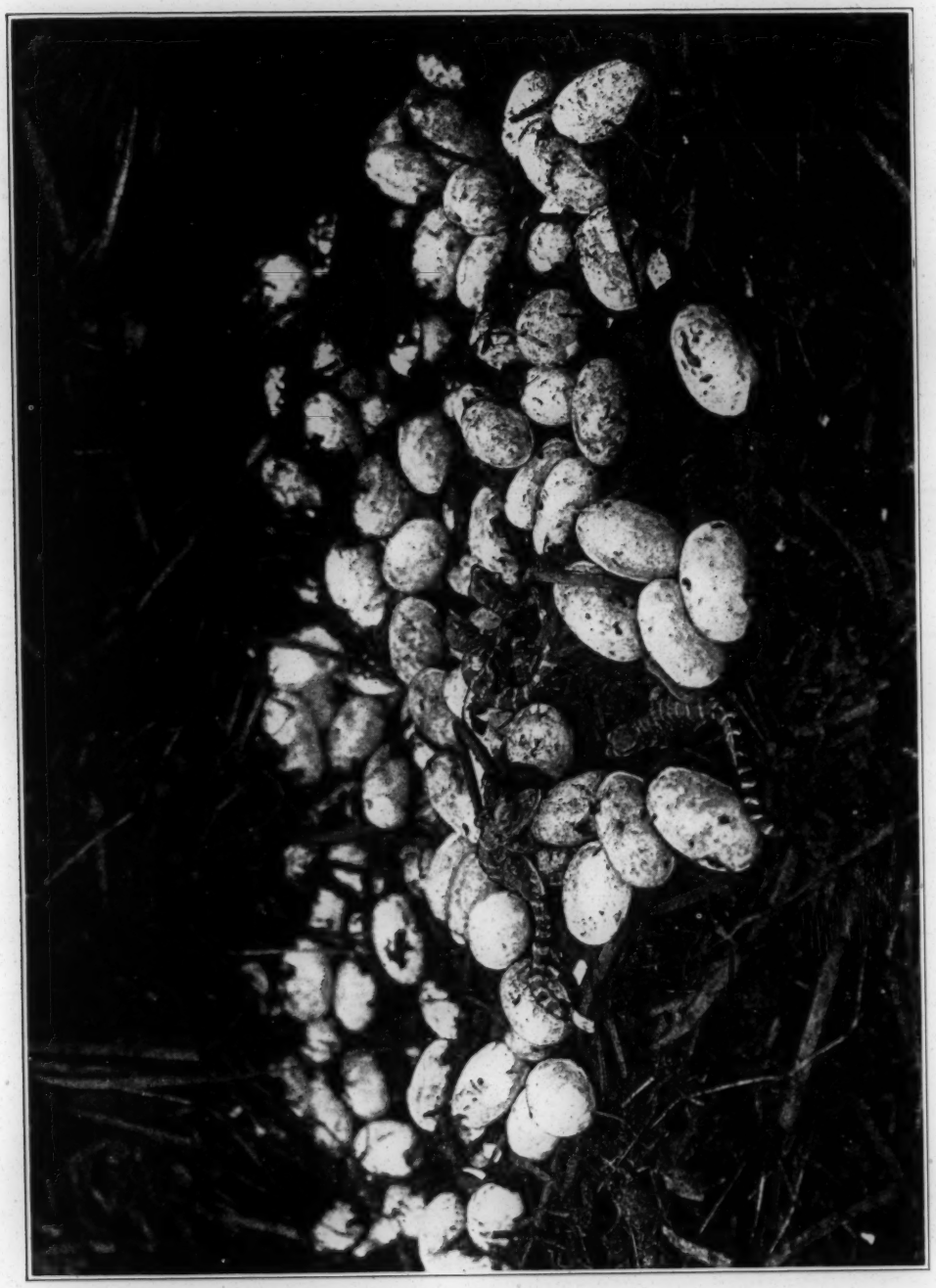
But where bananas, pine-apples, limes, and other good things grow well weeds also grow, since a weed is merely a plant out of place. One of the worst weeds of all is a grapevine, but some day a fine grape may be budded on its roots. One must work or his plantation will soon be a mass of ravenous vines. Here, too, the soil is rock. There is no chance to plow or even to grub. Planting is done with a crowbar and weeding with a machete. Then in summer when the fragrant limes are ready to pick, the mosquito is present in such numbers that words are weak and language inadequate to describe it. They come out of every crevice in the rock, out of the salina land, and out of the mud holes and abandoned cisterns by the million. When the mosquitoes get absolutely unbearable the natives put their children, dogs, and chickens on their boats and move off to sea or go down to Key West, which is Conch paradise. There is one island called Bamboo Key which they say is always free from mosquitoes for some unaccountable reason.

Fresh water is scarce, so that every house must have its cistern. The well water is brackish. The coral rock is merely a cap set upon the mud by the activities of the coral polyp, which is still at work. Sponges grow actively in the miles of shallow water, and the day is not far distant when there will be extensive sponge farms throughout this region.

In short, this is a peculiar and in



Seminole Indians in Their Dug-outs Near Miami



Alligator Eggs and Young Alligators Just Hatched in the Glade Back of Miami

many ways attractive country. It has remained about the same for many years, but with the general awakening throughout the Caribbean, the American mediterranean, it will be the first to feel it. Although it has drawbacks, the fact that it is truly tropical, that it is the natural gateway to the great Tropics beyond, that it is in the track of the great commerce to the Gulf, that it is of great strategic importance, and that it is soon to be traversed by a railroad which will be a stupendous and interesting engineering feat and will bind the keys together like a string of pearls, it will soon be the site of many winter villas and of gardens yielding the choice fruits and vegetables of the Tropics in addition to the sponges, fishes, turtles, and other products of the sea.

The railroad project to Key West was the subject of an article in THE NATIONAL GEOGRAPHIC MAGAZINE some years ago. Concrete construction will figure prominently in this work. It will rest on solid piers with re-enforced concrete arches. One plan calls for 50-foot spans, the other 80. The height is the same in both cases, 25 feet from the water to the crown of the arch, the track being 31 feet above the water. The concrete work is about six miles in length, part of it in the vicinity of Knight's Key, the remainder between Bahia Honda and Big Pine Key. A large percentage of the water spaces will be filled with a solid embankment, leaving an occasional waterway 25 feet in width.

## PROSPEROUS IDAHO*

WE'RE all proud, of course, to have the largest and most formidable ship in the navy named after our state. It's an honor that we appreciate. At the same time we know and don't mind saying that the state is worthy of the battleship.

Idaho, you know, is the state that is going to prosper most from government irrigation. We have twice as much land and twice as much water to reclaim it as any other state affected by the Corey act. Already work is in progress on irrigation plans which will reclaim to cultivation half a million acres.

The Minnedonka plan, which will conserve the water of Snake River, will make tillable 140,000 acres, and of these 90,000 will be open for cultivation June 1 next. These 90,000 acres are already settled. Work is in progress on an even larger irrigation scheme, the Boise-Payette plan, which will distribute the waters of the Boise and Payette rivers over 350,000 acres.

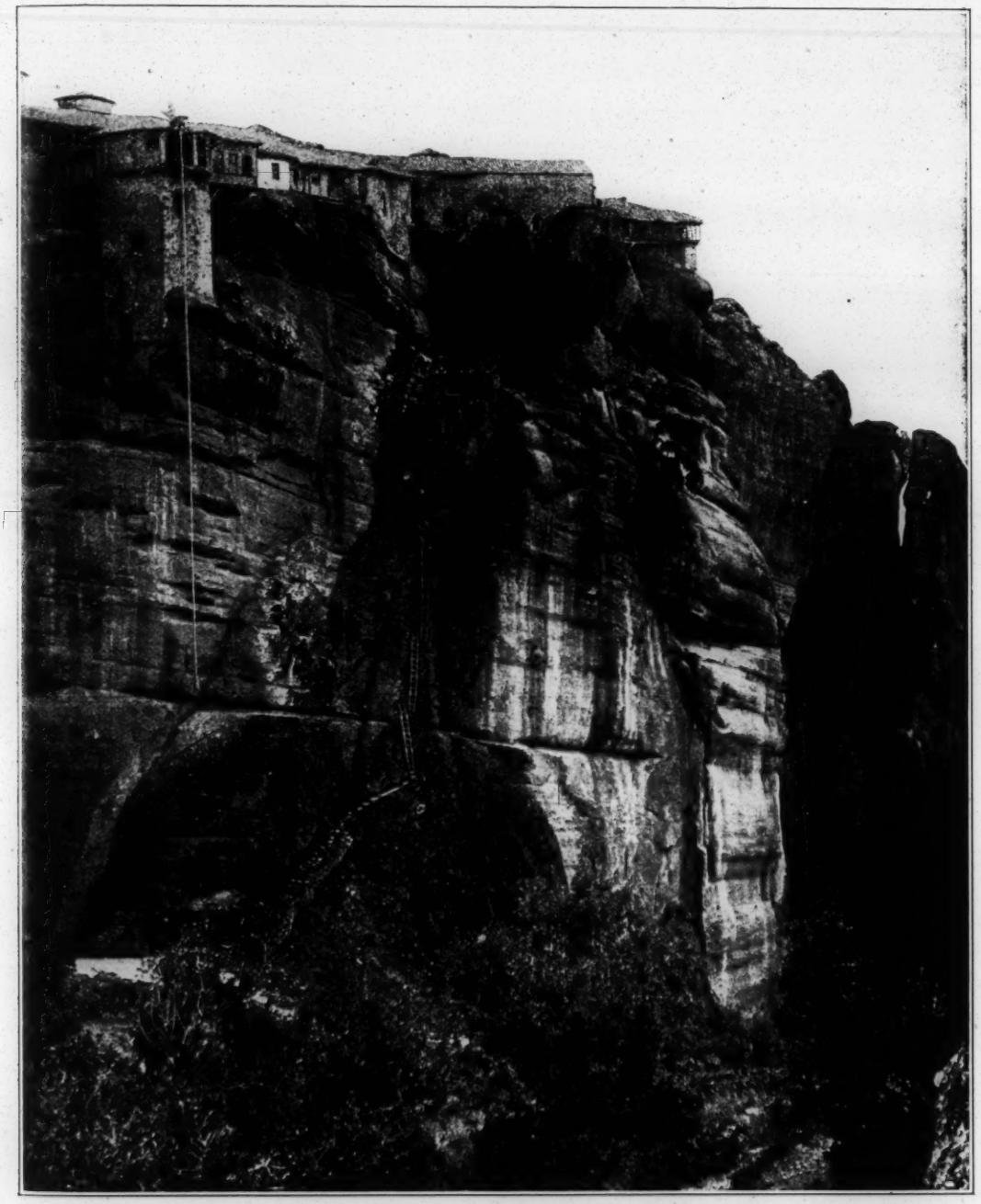
The great advantage of irrigated land is that it reduces agriculture to an exact science. The farmers aren't at the mercy of the weather man. There are no dry seasons and no wet seasons.

In sugar-beet culture, for instance, Idaho will soon be the leading state. We already have three large sugar-beet factories and are going to have two more, one at Payette and the other at Norma, in the near future. These new factories will each slice up 1,200 tons of beets a day. That means something. It means that each one will manufacture 18,000 tons of sugar in the course of a campaign. Beet culture is very profitable to the growers, and the Idaho beets have a higher percentage of saccharine matter than those raised in any other state.

In the northern part of the state we have the largest tract of white pine in this country and we also have extensive forests of yellow pine. In both sections there are rivers to float the timber, and all we need to realize on the wealth of the forests is better railroad transportation.

I doubt if any state is richer in minerals. Already we produce 53 per cent

*An interview with Governor Gooding, of Idaho, published in the New York *Sun*, December, 1905.



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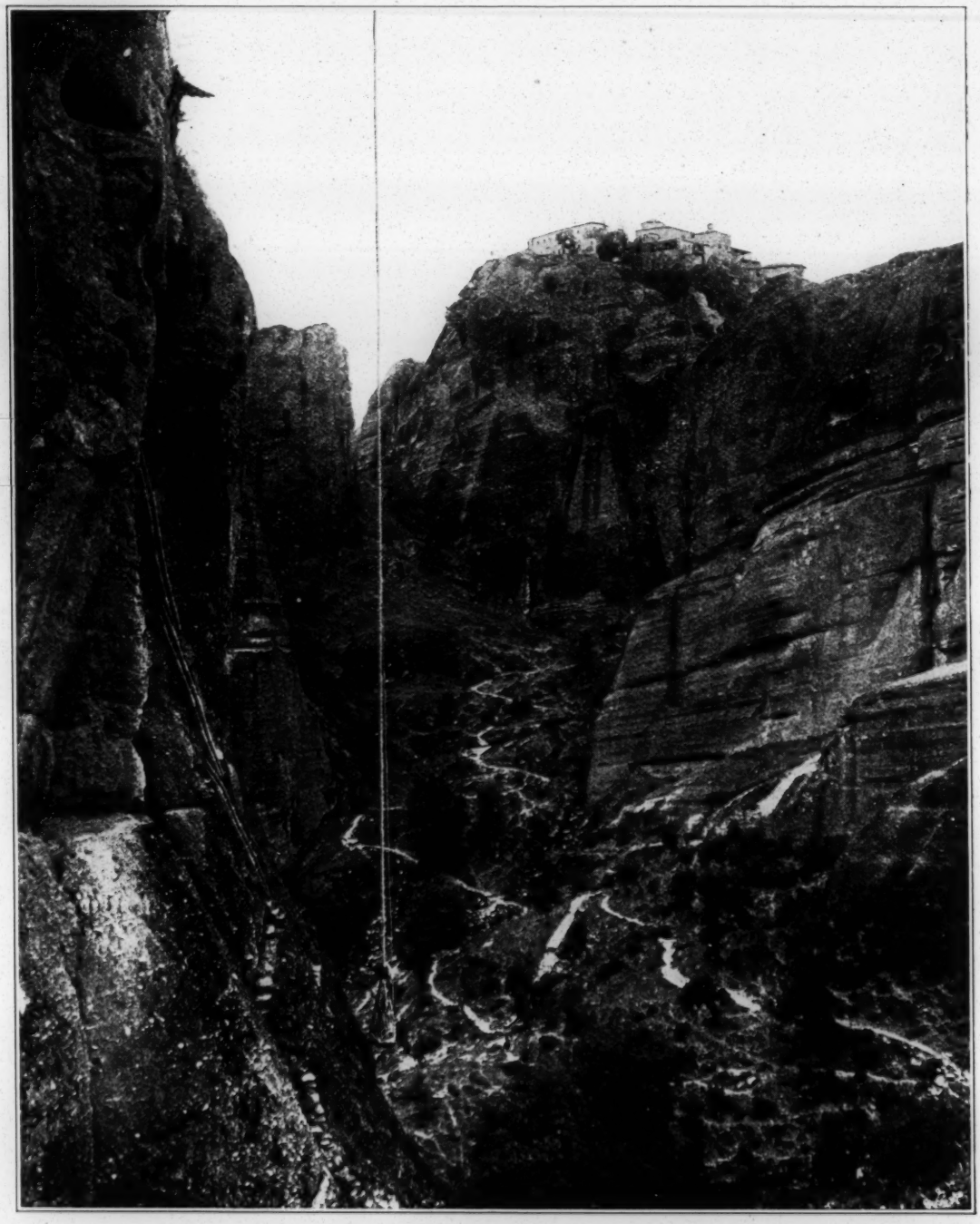
Monasteries of the Air

The only ways (swinging ladder and windlass hauling net) of reaching the Monasteries of the Air, St. Barlaam and Meterion, at Meteora, Greece. The monasteries were built many centuries ago, and are situated about 10 miles from the Macedonian frontier.



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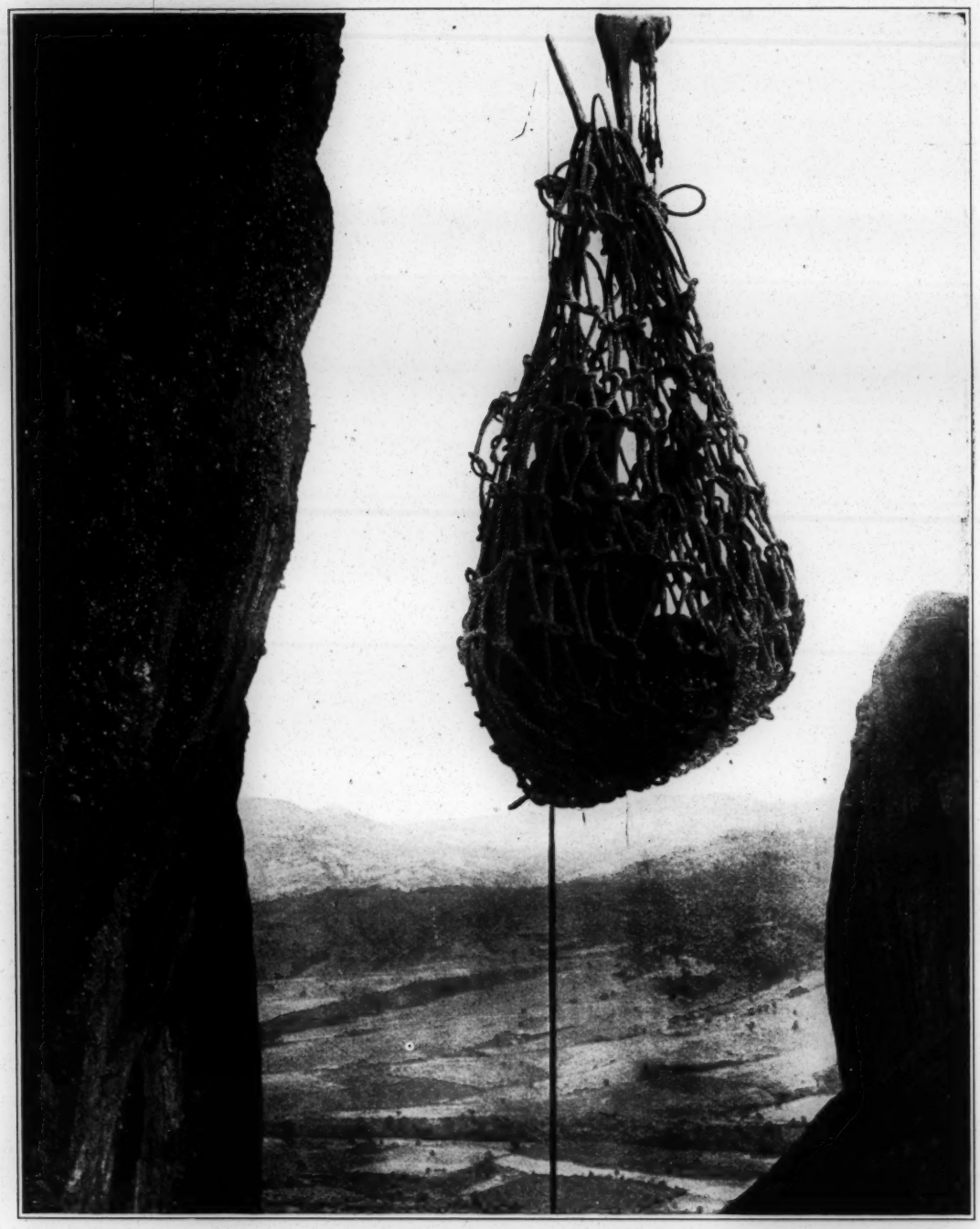
Ascending to the Monastery of the Air (St Barlaam) by Means of a Net Drawn by a Windlass. The Rope is 300 Feet Long



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Another View of a Monk Ascending to the Monastery of the Air, Greece

Photo from C. C. Pierce & Co., Los Angeles, California

View of a Pigeon Farm at Los Angeles, California

Photo from C. C. Pierce & Co., Los Angeles, California

Another View of the Pigeon Farm at Los Angeles, California

of the world's production of lead, and no one knows the wealth of gold, silver and copper we have. I think the largest part of our mineral wealth is still undeveloped. I believe that the United States government should have a department of mining.

In the central part of the state we have a wonderful grazing country and a country which is also capable of raising such immense crops of grain as, for instance, 50 bushels of wheat per acre, 90 of barley and 120 of oats.

Governor Gooding has been engaged in developing Idaho for twenty-five years. He is a ranchman and a banker, as well as a statesman. He feels that the greatest need of his state is improvement in railroad facilities, and is especially anxious to see constructed a road connecting the north and south parts. In his campaign for election he says he drove 175 miles and made his fight largely on a plan to connect the two sections of the state by rail.

# THE ANNUAL DINNER OF THE NATIONAL GEOGRAPHIC SOCIETY

MORE than 200 members and guests were present at the annual dinner of the National Geographic Society, which was held in Washington on the evening of December 20. Secretary of War and Mrs Taft were the guests of honor of the evening. The large majority of those present were residents of Washington, but a number had come many miles to be present, Messrs Angelo Heilprin and Henry G. Bryant from Philadelphia, Professor Libbey from Princeton University, Messrs W. S. Champ and Anthony Fiala from New York, and Major Thomas L. Casey, U. S. A., and Mrs. Casey from Saint Louis. California, Texas, Wisconsin, Michigan, Alabama, Ohio, Illinois, Virginia, Kansas, Nevada, Wyoming, and Pennsylvania were represented by members of the U. S. Senate or House of Representatives. It was the first annual dinner of the Society, and the occasion was so successful that it has been decided to hold an annual banquet each year during the week preceding Christmas. The following paragraphs from an account in the *Evening Star* of December 21, by Albert F. Ferguson, may prove of interest:

"Mr William H. Taft of Ohio and Mrs Taft were the guests of honor at a dinner given at the New Willard Hotel last night by the National Geographic Society. Though it was as Justice Taft of the United States circuit court or as Governor Taft of the Philippine Islands, and later as Secretary Taft of the War Department that he became generally known to the people of the country, the members of the National Geographic Society desired to do honor, not to the jurist, the administrator or the statesman, but to the man who had the force and ability to be each and all, and who devoted his energies and many talents to the cause of his country.

"At the beginning of the speechmaking which followed the discussion of an excellent assortment of substantial edibles, Prof. Willis L. Moore, as its President, announced that the National Geographic Society had a membership of eleven thousand. In its endeavor to honor Mr Taft, however, the organization strayed beyond the folds of its membership and gathered about the six long tables set for the dinner an array of men and women who represented not only persons whose thoughts turn to subjects geographic, but

an infinite variety of professions. The statesman, diplomatist, soldier, sailor, writer, legislator and explorer rubbed elbows with the capitalist, the philosopher, the poet and editor. As was to be expected, the geographical limits of the United States were not observed when the invitations to the dinner were dispatched. Lady Durand, wife of the Ambassador of Great Britain, the Ambassador of Brazil and Madame Nabuco, the United States Minister to Japan and Mrs Griscom, the Governor General of the Philippine Islands, members of the Russian and German embassies and the Japanese legation, Mr Anthony Fiala, W. S. Champ and W. J. Peters of the Ziegler polar expedition were among those present who might be considered as representing the physical divisions of the globe, while the United States was fully and freely drawn on, not only to form the guest list, but to make up the membership of the Society.

"The time set for the beginning of the dinner was 7 o'clock. After the guests had been relieved of their wraps they were presented to Professor Moore, who, in turn, presented each person to Mr and Mrs Taft. After the informal reception and exchange of greetings dinner was announced and the company gravitated in the most natural way to the tables. Each guest was apprised of the place assigned to him or her around the six long tables and there was little confusion while the two hundred or more men and women found their seats. The dinner began in the most informal way as soon as every one had been seated. The tables were laid in the conventional gridiron shape, with the guest table raised a couple of feet from the level of the other five. Prof. Willis L. Moore, as President of the Society and toastmaster, was in the center and about him were ranged the distinguished guests. The members of the Society and their wives and the other guests and their wives occupied places at the other tables, all of which seem blanketed in the mass of green vines and roses that had been placed upon them in artistic confusion. Pink and white carnations were the boutonnières and dainty boxes of Huyler's candy tied with pink ribbons were given the diners of the fair sex as souvenirs of the occasion. The menu was all that could be desired, and after ample time had been allowed for its service and enjoyment Professor Moore drew the attention of the assemblage to the center table and the speechmaking began."

The toasts, which were all informal, were as follows:

THE TOASTMASTER—PRESIDENT WILLIS L. MOORE

*Ladies and Gentlemen:*

The National Geographic Society takes pleasure in having so many distinguished guests with it this evening. We have with us representatives of several of the great nations of the earth. We have representatives from our own Senate, from the Executive parts of our government, from our House of Representatives, and from those who represent the scientific part of our life. The National Geographic Society extends to you all a most hearty greeting.

Before this gathering it might be apropos for me to say a word in regard to the National Geographic Society and its members. My speech shall not be long. Its membership has come almost exclusively from the thinking, intellectual people of this city, of the nation, and somewhat from all nations—those who wish to keep abreast with the thought and activities of the world at large. This Society was founded in 1888 by Gardiner G. Hubbard, General A. W. Greely, and Mr Henry Gannett; they are the three active spirits that gave birth to this organization. Its membership numbers over eleven thousand today—an intellectual, thinking membership of over eleven thousand. Its receipts are nearly $30,000 per annum,

not one dollar of which, directly or indirectly, goes to any officer of the institution (applause), if I except our Editor, who gives his whole time to the work and who edits our NATIONAL GEOGRAPHIC MAGAZINE. It is an honor for us to serve the National Geographic Society; that is sufficient remuneration for us.

Geographic science is almost the highest—practically the mother of all natural science. It considers the lithosphere, the hydrosphere, and the atmosphere—the earth, the water, and the air. It has to do with the fauna and the flora—the two forms of life that are the effects of sunshine, heat, and moisture. It is interested in all forms of research whose objects are to discover the laws that underlie natural phenomena. It is concerned with research, with exploration, with the determination of the configuration of the surface of the earth, and with the determination of those far-away geographic boundaries that are so little known. It gives thought to the formation of and change of political boundaries; to the climatic, the geologic, and the economic environments that cause human families to move and to weld themselves into great national units, and the causes that effect the disintegration of those units. Geographic science, therefore, as we understand it, my friends, covers a broad field. We can hope to cover but a small part of it, and that part only imperfectly. I listened but a few days ago to a sermon by a great Scotch divine. He said, "I'll fares the nation where wealth accumulates and men decay." Now, the National Geographic Society, in its humble way of diffusing knowledge, is aiding to create men who do not decay. It is aiding, with other institutions of its class, to build human character which shall inure to the welfare of the American people. It is adding a wealth that means a stronger, more united nation, and a higher civilization; it is adding a wealth that doth not corrupt—a wealth of human intellect. (Applause.)

I said that the founder of this Society was Mr Hubbard, who acted with the aid of two of those who are with us tonight. The heirs of Mr Hubbard, Mr Alexander Graham Bell, Mr Charles J. Bell (who I am glad to say is present), and the other heirs of Mr Hubbard have very generously given to the Society a beautiful building for its home, without any obligations on us, financial or otherwise. It is a memorial to Mr Hubbard. Some poet has said, "Millions of the spirit surround us forever, and the soul that once lived shall never more die," and as we gather here tonight I can imagine that the spirit of our first President is looking down upon this scene and with his heart filled with gladness bidding us God-speed in the work of the National Geographic Society, and I would ask you one and all to rise and silently to drink to the memory of our first President, Gardiner Greene Hubbard.

Our first toast of the evening is "The President and the Flag." Our civilization was first planted on the eastern shore of the continent, thence it traveled over the Allegheny Mountains into the great fertile valleys of the interior. It soon crossed the wide plains of the West, mounted the rugged battlements of the Rocky Mountains, and then hesitated when it reached the placid waters of the western seas; but it was only hesitation, for finally it leaped forward from this island to that, and today we find the free institutions of this country planted at the very doors of the Orient. Therefore, from Washington to Roosevelt, every President of the United States has been interested in geographic research, in the alteration of the boundaries of political empires; and thus we come appropriately to the toast, "The President and the Flag," and who of those in our land is better

qualified to respond to that toast than the distinguished man who is our honored guest tonight? He has served in many capacities under that flag; served well, served with credit to his country, and before he rises to speak I will ask you, without leaving your seats, to drink to the health of the Secretary of War, our guest.

THE PRESIDENT AND THE FLAG—THE SECRETARY OF WAR, MR WILLIAM H. TAFT

*Mr Chairman, Ladies and Gentlemen:*

I was very much interested, in the statement the chairman has just made, to learn how much cheaper it is to run a geographic society than it is to build a Panama Canal. (Laughter.) There is one man connected with this association, whose name was not mentioned by the chairman, of whom I have the honor of being a cousin, and if I meet that gentleman under circumstances where the police will not interfere he will remember our relationship. (Laughter.) A number of months ago he inveigled me to agree to make a speech on the Philippines, to make a speech which as I understood was simply to talk in a parlor, and the first thing I knew I found I was in an armory and talking to a most formidable audience. After having made the speech he came to me and thanked me for it, and then confidentially he said to me, "Now we wish to make you the guest of honor at a dinner." When I consented, I said to him, "That is all right about the honor part of it, but I have already made one speech for your Society and I do not wish to make another; it takes too much preparation;" and he agreed. Now I find that the way you compensate your lecturer for making one speech is to require him to make another. You cannot run the canal on that principle. (Laughter.)

The toast which has been assigned to me since I sat at the table—it was printed on the program—is "The President and the Flag." The discussion of one of these subjects would have been enough to overwhelm a man; but two, under the circumstances, I submit to the members of the National Geographic Society are certainly—with its corrupt management—more than a man ought to be subjected to.

The President. It is not too much to say that it has fallen to the lot of Theodore Roosevelt to be the President of the United States when its prestige as a nation has been carried to a higher point than ever before in its history. (Applause.) The influence of the United States for good on this round globe is greater than it ever was before, and that is due not only to the material progress and the marvelous growth of this nation, not only to its capacity for war, should that be challenged, but to the moral position that the United States occupies among the family of nations as not seeking to aggrandize itself, but anxious only to produce peace and prosperity the world around. (Applause.) That is what our flag means wherever it flies, and the reason why, certainly one of the reasons why, the prestige of the nation has reached the point that it has, is the personality, the intense Americanism, and the limpid purity of the character of Theodore Roosevelt. (Applause.) He is the embodiment of the American spirit, and I do not think it too much to say, though they do not know him so well, that his personality and his character interest the people of foreign lands almost as much as they do the people in our country.

Now with respect to the flag. I have to suggest these things as they come. There has been an idea current for a long time, and especially in the mind of my Democratic friend, Senator Newlands, for he is almost the only Democrat we have today—all the others are slipping away—that the Constitution

and the flag were going to part company. Mr Dooley spoke of the Supreme Court, as you remember, as saying that four of them say the Constitution do follow the flag and four of them say it do not; and then Mr Justice Brown said, "You are wrong; sometimes it do follow the flag, and sometimes it do not, and I am the man to tell you when it do and when it do not." (Laughter.)

In deference to that method of describing the decision of the Supreme Court, and the effect of it, it seems to me proper to say that nobody—expansionist, imperialist, or anti-imperialist—has ever really contended that the Constitution does not follow the flag. The question is not whether the Constitution of the United States is in force in the Philippine Islands or in Porto Rico, or in Hawaii, or in the Canal Zone, or in Alaska, but the question is what particular restriction or limitation of the Constitution is applicable to the particular place.

It has been my fortune and the fortune of the lady who has linked her fortune with mine, to be somewhat peripatetic during the last four years, and I assume that it is that fact that entitles us to the consideration of the National Geographic Society. (Laughter.) I beg to announce that our traveling is over, that we have ceased to be the peripatetic members of this administration, and that hereafter Secretary Root and Mrs Root will be found to fill that honorable position. (Laughter.) The Brazilian Minister and his lady, who do us the honor of being present tonight, have advised us that Secretary Root has agreed to go to Brazil to attend the Pan-American Convention at Rio Janeiro. Now I advise the Brazilian Ambassador to interrogate Mr Root each month and each week, as to whether he is going, because I have had an experience with the Secretary of State before he became the Secretary of State as to the value of promises of that kind. He agreed to go with me to the Philippines, and I interrogated him each month and he promised each month until July, when he failed me. But it was his loss that he did not go (laughter), as Senator Newlands will testify.

We are getting up a society of the Philippine trip, and we are getting it up because we find that we have talked so much about the trip that nobody will listen to us except those who were on the trip (laughter), and we are determined to have an audience. The jokes which we regarded as exclusive and well worthy of constant repetition seem to tire even those members of our families that ought to respect us, and especially ought to respect the jokes, however old; but family discipline wanes and we are made aware of the necessity, as I say, of an organization, an exclusive club of the visitors to the Philippines.

Seriously, ladies and gentlemen, I am very grateful for the honor conferred upon Mrs Taft and myself tonight by this very magnificent dinner and assemblage. I feel deeply the humiliation of not having been able to prepare something worthy of your hearing, and for that lack you must charge the corrupt management of your association. (Laughter and applause.)

THE TOASTMASTER

It has been stated that when the present Secretary of War was Governor of the Philippines there came a rumor to Washington that he was in bad health, and the present Secretary of State, who was then Secretary of War, cabled over to the Philippines and asked what was the truth of the matter. The Governor of the Philippines answered that there was no truth in the rumor; that he had actually ridden fifty miles on horseback that day without dismounting, and had arrived

in fine condition, and I understand that the then Secretary of War, our present Secretary of State, cabled back and congratulated him on his good health, but solicitously inquired as to the condition of the horse. (Laughter.)

Our next toast is "The Occident and the Orient." The modern means of transportation and communication are bringing the East and the West so close together that they may soon be like the man who, while threading his way through the crooked streets of Boston, became confused and finally met himself coming from the opposite direction. So it is that applied science is each day bringing the Orient nearer and nearer to the Occident; and still there is an Orient and there is an Occident, and the gentleman who will respond to that toast was our Chargé d'Affaires at Constantinople for a considerable time, and was our Minister to Persia, and for three years has been our Minister to Japan—the Honorable Lloyd C. Griscom, who will now respond.

THE OCCIDENT AND THE ORIENT—THE AMERICAN MINISTER TO JAPAN, MR LLOYD C. GRISCOM

*Mr Chairman, Ladies and Gentlemen:*

I think I might well begin by asking your indulgence. I need hardly tell you that the Secretary of War is a hard man to follow. I think Governor Wright and all subsequent governors of the Philippines will bear me out in this, and Mr Taft this evening is not the only one who has been troubled about the toast assigned to him. I was informed that I was to treat exhaustively and conclusively of the relations between the Occident and the Orient, but at the same time I was told that I was to strictly limit my remarks to ten minutes. Now I make no pretense of being able to accomplish this purpose. I do not understand this limit business; it is a matter which is understood by Senators and by Representatives; but in diplomacy the idea of a time limit never enters into our diplomatic minds. (Applause.) I feel, however, that there are certain phases of the toast of which I may treat. I was told by way of instruction, also, that I should try to confine my remarks to geographic subjects, and to endeavor to instill into you, without your knowledge, a little increase in your information about the geography of the world at the same time you were imbibing and thinking of more substantial matters, and at the same time I was warned not to treat too heavily of geographical matters, and to remember that there were ladies present. (Laughter.) Now I am endeavoring to the best of my ability to follow all these instructions, and the only thing, the only subject that occurs to me of which I might speak will be the country of Persia, which is the only country in which I happened to have made a journey of any unusual or out of the way character.

Now I would like very much to tell you of a trip which my wife and I made when we rode a thousand miles on horseback, and had many adventures, but I am confronted with this serious question of time, and I can only try to give you a little better understanding of the oriental character by mentioning some of the incidents of our journey. I recall that in the middle of a trip we made through the central and western part of Persia we were very hospitably entertained by the great chief, the tribal chief, a man of, you might say, savage birth, but very much of a gentleman at heart. To give you an idea of his character I might say he pointed out to me one day a scar on the top of his head which was obviously a bullet hole, and he said to me, "I received that from the last distinguished stranger who came this way." (Laughter.) And I said, "How was it?" He said, "Well, shooting goat, shooting

mountain goat, wild mountain goat, and one of the shots of this gentleman's rifle struck a rock on the mountain side and ricochetted back, and by the merest chance inflicted a very serious wound. But," he said calmly, "I never told that; he never knew I was hurt because I put my heavy fur cap that the Persians wear over my head, and it bled inside until we got home and he never knew it." I said to him, "What was the name of the gentleman who shot this hole in your head?" and he said very proudly, "It was His Excellency Sir Henry Mortimer Durand." (Applause.) I only mention this to illustrate the innate hospitality and character of this savage tribe. And we learned a lesson which is the same the world over; if we have to be shot in the head, we prefer to have it done in a careful and diplomatic way. (Applause.)

Further on we were engaged in several fights with different tribes—protected always by an escort on this journey—and I could tell you many things that would increase your interest. And I recall on one occasion when we were in the middle of a very unpleasant fight, being shot at from all sides, my wife was ill and being carried in a litter, the old chieftain who was at the head of our escort begged me to mount my horse and fly quickly over the mountains. He said escape was easy. I pointed out that my wife could not escape this way, and refused his suggestions. He turned to me rather sadly, stroked his beard and said, "Well, sir, you indeed are a very young man. When you have reached my time of life you will know there is only one of you, but there are as many wives as there are sands in the desert." (Laughter.)

I could go on and tell you about these people, but I have a better method than that of letting you know what they are. I have only to recommend to you the delightful book by Lady Durand called "A Northern Tour in Western Persia," wherein she describes far more conclusively and far more beautifully these people and this country, and in all sincerity I recommend you to read this book. And now if you will permit me to leave the toast which has been assigned to me, I cannot help thinking of Kipling's lines where he says "West is West and East is East, and never a twain shall meet," and I feel very strongly he might rewrite this if he had occasion to visit the Far East during recent years—certainly it must be very largely modified. He perhaps does not appreciate what even one great traveler can accomplish; but there are several classes of travelers and there is only one class in particular which I admire; I admire a man who travels for the purpose of bringing closer together two great people, I refer to the American people and the Philippine people. I have seen in the Far East the effect of one man's work. I am sure you already suspect to whom I am referring, for there is one name in the Philippines, the name of one American which will go down in their history as long as there is a Filipino people in existence, and that is the name of our distinguished guest this evening, the Honorable William H. Taft. (Applause.)

Now Mr Taft has done more than travel a hundred thousand miles. The geographies showed that when we took the Philippines from Spain, or acquired them from Spain, there were 1,100 islands in the Philippines, and now our census shows that at the time Mr Taft left the Philippines there were over 3,000 of them. I am tempted to ask, like District Attorney Jerome, "Where did you get them?" Now Mr Taft has sought for virgin soil, and I can assure you he has found a place—found, discovered, occupied, and taken possession of a place which no man had sought after before—I mean a place in the heart and affection of the Filipino. It

is from such men as Mr Taft that we really learn our lessons in geography. It is really from him that we have learned all we know of the Philippines. And who taught us what we know of the geography of China? John Hay. And now in my opinion we are about to learn a lesson of the geography of South America from our distinguished Secretary of State, Mr Elihu Root. It is from such statesmen as these that we learn the lessons in geography, and I feel that I voice the sentiment of those in this assemblage when I say that I am very proud of it that I can be here tonight to join in trying our best to do honor to one of these three great men. (Applause.)

THE TOASTMASTER

Our next toast is "The Press." Many good things come out of Kansas besides bumper wheat and corn crops; one of them is the gentleman who will respond to this toast, and just now I am reminded of the Irishman who was passing through a cemetery and he saw an inscription on a beautiful monument which read: "An editor, a Congressman, and an honest man;" and he said: "Faith, three of them in one grave!" (Laughter and applause.)

Now, my friends, when our guest who is to respond to this toast passes over the divide whence no traveler returns—and we hope it will be long, long years to come—he can be laid away and they can inscribe on his tomb that inscription that the Irishman read; and it will be true, and there will be but one man in this sarcophagus. I introduce the Honorable Charles F. Scott, of the press and of the Congress.

THE AMERICAN PRESS—MR CHARLES F. SCOTT, REPRESENTATIVE FROM KANSAS

*Mr Chairman, Ladies and Gentlemen:*

First of all, Mr Toastmaster, I wish to express my regret that the toast to which I am asked to speak could not have been assigned to another. It is a great subject, a noble theme, and it deserves to be discussed by one who is not handicapped by sentiments of modesty from saying all that he really believes. You will understand how far your present speaker is from fulfilling this requirement when I say that I was born in Kansas, and with the exception of a few brief months of annual exile in Washington, I have lived there all my life. From my earliest infancy, therefore, I have breathed the atmosphere of reticence and self-effacement which pervades that blushing and diffident commonwealth (laughter), and which has made modesty, particularly when the riches and resources, the glory and grandeur of our state are under discussion, the badge of all our tribe. "Such boasting as the Gentiles use or lesser breeds without the law" is never heard from the lips of a true Kansan when his state is the subject of discussion, for the actualities of her development and growth make the most daring boast of today sound like the language of detraction and disparagement tomorrow. And furthermore I am myself a part—an inconsequential part I hasten to confess—but still a part, of the American Press. For nearly a quarter of a century my chief business has been the making of newspapers—a business, as you all know, which breeds in its devotees that distrust of self, that deference to the opinions of others, that doubt of one's own infallibility which so far unfits them for contact with a rude and buffeting world.

By avocation and training, therefore, as well as by birth and environment, I am peculiarly unfitted for the discussion of a theme that calls for bold and positive utterances.

But I can well understand how one, not a Kansan and not a newspaper man, might rejoice at the opportunity

which this toast affords to pay tribute to the greatest single force in our civilization. And I can well understand how those responsible for this program would have regarded it as incomplete without at least a word concerning your most active and potent coadjutor, I had almost said your monitor and guide. You, gentlemen, members of the National Geographic Society, and others like you, are the makers of maps; but the newspapers are the teachers of geography. You made a map long ago of the Dark Continent; but the gloom that obscured the heart of Africa was not dispelled until an American newspaper man, sent by an American newspaper, penetrated its forbidden fastnesses and let in the light. For three hundred and fifty years your maps have pictured the Philippine Islands; but the world in general never heard of them until the thunder of Dewey's cannon across the startled waters of Manila Bay was echoed in the newspapers of every land. Members of this learned society have doubtless known from the beginning of Mukden and Harbin and Vladivostok and Port Arthur and Sakhalin, but it remained for the newspapers to make that knowledge universal.

You, gentlemen, are the makers of maps. But sometimes your maps are wrong. I will not yet admit that I am old, but I am not so young but I can remember when your maps branded the western two-thirds of Kansas as a part of the Great American Desert! That section of my state, gentlemen, produced this year 80 million bushels of wheat, besides corn enough to feed cattle enough to subsist soldiers enough to conquer the earth. My good farmer friend, our distinguished Secretary of Agriculture, thought that map was right, and in a recent speech he inadvertently used the word arid in connection with that portion of the state and he had to go 1,500 miles to apologize. It was the newspapers that corrected that map. They were the pioneers. They blazed the way westward, and the people followed, timidly at first, and then triumphantly, making farms where your maps said the desert was, building cities where the National Geographic Society never had the faintest idea that the coyotes and the prairie dogs would ever be disturbed.

But it is not only in Kansas and in things geographical that the newspapers have blazed the way. All over the civilized world, and in every cause that has engaged human thought and activity and courage they have been the pioneers, the pathfinders. It was in 1622—when the reign of James the First was drawing to a close, when Ben Jonson was poet laureate and the personal friends of William Shakespeare were lamenting his then recent death, when Cromwell was brewing beer at Huntington, when Milton was a youth of sixteen just trying his prentice hand at Latin verse, and Hampden a quiet country gentleman in Buckinghamshire, that the first newspaper addressed to English-speaking people, the *London Weekly News*, issued its initial number. A puny sheet it was, of four small pages, printed from rude type, no doubt with intolerable ink, on coarse and dingy paper, and we can well imagine the quibs and jibes flung at it by the wits among the few who could read it. What prophet or seer among them all could have foretold that with the advent of that petty periodical there was born into the world a force that was to carry light into the dark places of the earth, that was not only to record history, but to make it, that was to prescribe penalties and proclaim rewards, that was to take the slave by the hand and make him a man, that was to declare war and proclaim peace, that was to make freedom universal and tyranny impossible, that was to make puppets

of kings and to put into the hands of the people the scepter of sovereignty. Feeble and ineffectual no doubt that first leaflet was, a mere rushlight emitting but the faintest glimmer, but in three hundred years to what power has it grown—a blazing sun under whose searching glare there is no concealment. Ah, what battles the press has fought—for its own freedom first of all, for until that battle was won no other victory was possible. For its own freedom first, and then for the truth that makes all men free. I do not need to be reminded that what I assert concerning the effort and influence of the press as a whole can be controverted with individual exceptions. Tyranny has never lacked apologists and defenders and error has always had its paid and perjured champions. But these exceptions have been so few and feeble that in the general summing up they may be neglected altogether. In the main the mighty enginery of the press has wrought for righteousness, for freedom and justice and truth. Describing the condition of the English laborers in the days of the Stuarts Lord Macaulay could think of no phrase of deeper commiseration than to say "They had no newspaper to plead their cause." What a tribute that is to the universality with which the press of our day can be relied upon to interpose its everlasting prohibition "Thou shalt not" between the weak and those who would oppress and despoil them.

It was Lord Disraeli, I believe, who first characterized the English press as the Fourth Estate. Here in America it is the first estate. It wields incomparably more power than any House or Senate or President, for it makes houses and senates and presidents. It may not make judges, possibly, but it has sometimes been suspected of having a large share in making decisions. "I don't know," said Mr Dooley, "whether the Constitution follows the flag or the flag follows the Constitution, but I do know that as long as the Supreme Court keeps one eye on the newspapers and another on the election returns it won't go very far wrong." (Applause and laughter.) The newspapers may not always use their great power wisely and honestly and well. But when was ever great power, except that which dwells with Omnipotence itself, used always wisely and honestly and well? "There were doubtless a good many verdicts for the plaintiff that ought to have been for the defendant," said an old judge once in describing a district over which he had formerly presided, "and there were a good many verdicts for the defendant that ought to have been for the plaintiff, but in the main justice was done."

In some few cases the American press may cause pain to the innocent, but in ten thousand cases it puts the fear of God into the heart of the guilty. It may not always uphold the virtuous as it should, but it follows with sleepless vigilance upon the trail of the doers of evil. Sometimes it may "bend the pregnant hinges of the knee" in the presence of ill-gotten wealth, "that thrift may follow fawning," but more often it pinions in the pillory of public condemnation and contempt the dollar-mad devotees of high and unholy finance. Its editorial columns may sometimes be timid or corrupt, but everywhere and all the time it prints the news. And therein lies its greatest power, thereby it renders its most important, nay its altogether indispensable, service. Publicity has come to be the master word in our present day statecraft. Strange that we have been so long learning it. Strange that we could not have sooner read the real significance of that first mighty commandment, thundered by Jehovah into the darkness and disorder of a world that was without form and void, "Let there be light!" Let there be light that those whose deeds are evil

may have no cloak to hide them. Let there be light that the hidden things may be made plain. Let there be light that the rocks and shoals which threaten our ship of state may be uncovered. Let there be light that we may walk without stumbling in the pathway that leads through civic righteousness and honest administration to prosperity and tranquillity at home, to dignity and honor among the nations of the earth. Let there be light, the first great commandment which Omnipotence itself must make before order could be brought out of primeval chaos. Let there be light, the last great commandment which the wisdom of man has at length evolved as the surest solvent of the hard problems which confront a nation whose highest ambition is orderly liberty under the law. Let there be light—and the clearest and steadiest light, the most searching and insistent light, the most persistent and relentless light, the light that will most surely and safely and steadfastly guide the American people in the paths of probity and prosperity and peace, is the light that shines through the free and fearless columns of the American press. (Applause.)

THE TOASTMASTER

I fully agree with everything that Mr Scott has said in regard to the American press. I believe that it is better that individuals at times should suffer from the license of individual members of the press than that the press as a whole should be restricted in a free discussion and criticism of men and events. We know that the sunlight destroys the microbes of disease; likewise the uncovering of official, and personal, and business actions by the press is, I believe, a greater deterrent to crime than most of the laws on the statute books. One of the crowning achievements of this American civilization I believe to be the freedom of speech and the freedom of the press. But I would take issue with my distinguished friend with regard to his criticism of our map-makers. We do not need to be told that Kansas is a great state. We know it, and take pride in it; but, once when one of our map-makers was traveling in Kansas, in the western part of the state, he met a man coming along with a lumber wagon filled with barrels. Our geographer asked him what he had in the barrels, and he said, "Water." "Where did you get it?" our representative asked, and the Kansan replied, "Up the road about seven miles," and our eastern man, who makes maps, said, "Why don't you dig a well?" The other replied, "Well, stranger, it is about as far to water in one direction as it is in the other." (Laughter and applause.)

So long as there is anything to challenge human courage there will be men to accept battle. The inhabitant of the north temperate zone, especially, goes against that which opposes, whether it be man or natural conditions.

We have with us tonight the leader of the Ziegler Polar Expedition. He was the second in command of the first Ziegler Polar Expedition, which was compelled to return. He then was placed in command of the second expedition. Our Mr Peters, of the National Geographic Society, was second in command and took charge of all scientific work. The second expedition stayed in the Arctic over two years, and after many hardships—fighting with climatic conditions that no human power could successfully combat—was rescued by our friend Mr Champ, the representative of Mr Ziegler. Mr Anthony Fiala will respond to the toast "The Arctic."

THE ARCTIC—MR FIALA

*Mr President, Honored Guest, Ladies and Gentlemen:*

I feel deeply the honor conferred in calling me before such a distinguished gathering. I think I ought

to be here in fear, but the fact that I know you are all brother explorers gives me courage. Every person, as in the days of old, in the days of adventure, who is looking to or doing something new, is an explorer, so that I feel that I am with my friends, brother explorers. (Applause.) The toast is a large one, and I won't attempt to treat fully of it. I know I could not respond to it as it should be. There are veterans in this room, one in particular, who could tell more of the Arctic than I could. Since the days of Herodotus and several of those early explorers, and later on in the days of the Norsemen, men have been trying to find out things about this open world of ours; they have been following the original command to Adam to subdue the earth, and it is pretty nearly subdued. There are only two places, practically, on this globe where there is still a chance of investigation, of discovery, the chance of making new maps, that is in the Arctic and the Antarctic.

A returned explorer has generally to face three questions—I know they have come to me. One is, "How far north did you get?" That is a hard one to answer; it makes the explorer feel badly. The second one is, "What is this all good for, anyway?" and the third, "What do you go up there for and waste your life away in that region of ice and snow?" and yet your answer to that last question brings back the first one, as to how far north you got—showing they have an interest in why you went there.

I have often thought of our trip into the north. The first year, two sledge trips went over the ice and were failures, and then there was the return to Cape Flora, 160 miles south, where our relief ship was anchored in the ice, and there a large number of men waited while another party went north during the month of September, reaching our northern outpost November 20. Now the sun went below the horizon on October 22, and so you can imagine how much light there was to travel over these ice fields after the sun was down. Mr Peters and myself with a sledge ran repeatedly into ice columns which neither of us had seen, because of the darkness being so dense. The moon fortunately appeared, and we traveled over a glacier a thousand feet high to reach our camp, and that Thanksgiving Day will be a Thanksgiving Day that every member of that party will remember as long as he lives. To you who have traveled in other countries the daily life of the man on the polar trail is possibly of interest. These great fields of ice are in constant motion under the currents and the winds. Imagine yourself on 500 miles of solid ice grinding with that immeasurable force against a rock-bound coast; can you possibly comprehend what sort of conditions you have to combat?

You have to take care of your dogs; you have been traveling over ten hours a day, and when the time comes to camp at night the first thing the dogs have to be unharnessed, and the temperature is possibly 30° or 40° below zero, and you have to take your mittens off to get the dogs out of the harness. The poor dogs are tired, every one of the party is tired, and the little dogs crawl down in the holes made for them to sleep in. Then you go to put your tent up, and when you light your lamp and start to cook the interior of the tent fills with an intense vapor which you can hardly see through, and this vapor condenses on the interior of the tent and forms clusters of frost crystals that you have to brush off, and then it melts and forms part of the little rivulets of water that accompany your sleep that night. The sleeping bag itself, however, is a great place of comfort, and you know of what pleasant times you have in

your dreamland at night thawing out your sleeping bag of ice,—and you can imagine this sleeping bag thawed out in the moist atmosphere of its interior. These are simply ideas; we go there for that and we are perfectly satisfied. But this is the description of the thing that is of interest to most people, as some one has expressed it. And then the next morning you get up at your usual time and it often seems as though you only had half an hour or even fifteen minutes' slumber, and sometimes if you get that much on a very cold night you are lucky.

So you have to confront a problem of a trip of 500 miles up and then there is 500 miles back; your dogs eat a pound a day and a man eats three pounds a day. If you make 10 miles a day, which has never been made, it would take you 100 days. Your dogs eat one pound a day, and if you have 10 dogs that means 10 pounds; a man eats three pounds a day, and without taking into consideration the weight of your sleeping bag, tent, or any of the equipment, there would be an expenditure of 13 pounds a day. Now you can put about 600 pounds on a sledge, so you can realize what the total weight must be, and you will realize some of the problems that stand before the explorer.

Then of course you know about these sledge trips. We have to work many hours a day. We start out about 5 o'clock in the morning and work late in the afternoon, and some days we do not make more than a mile and a half, the poor little dogs, pulling as only dogs can, do their best.

To me it seems that the end of the Pole will be reached, but as to how soon I cannot know. I have often thought that a drift ship would be the way—a drift ship equipped with wireless telegraphy, and then the party would leave it and go off on their sledge trips and communicate back and forth with the drift ship by means of the wireless telegraph. But the problem of reaching the Pole is yet to be solved.

I thank you, ladies and gentlemen, for your kindness. I appreciate this honor of standing before you. The Arctic is a grand subject; it is a great country; there is very little known about it even in a commercial sense; but the value in dollars and cents has paid for the exploration. Millions of dollars have been returned to the countries who have sent out these exploiting parties, and so there is work in that way; and furthermore, as I have stated already, we have received the commandment, "Subdue the earth," and as long as there is a spot on the earth that has not been subdued, man will try to accomplish what he was placed on the earth to do. (Applause.)

THE TOASTMASTER

In inviting Mr Champ, who led the expedition that rescued Mr Fiala—of which he did not tell you—after they had been in the Arctic over two years and their position had become one of extreme peril, I have promised him that I would not call on him to speak. In this I am reminded of an incident that occurred when General Sherman was invited over to Philadelphia to attend a dinner of the Clover Club. He arose to speak, but the members made cat calls, and the quartet sang, and he was finally compelled to sit down in confusion without finishing his speech, and he was naturally angry. The next year, realizing they had offended the General, a committee came over and stated to him that they felt extremely sorry for what had occurred the year before, and asked if he would not show that he had forgiven them by coming again. The General agreed, but exacted a promise from the president that he would not ask him to speak. The night of the banquet came. The General had enjoyed a good dinner and was serene.

when the president arose and told how he had solemnly promised the General that he would not be called on to speak, but "Gentlemen," he said, "you know what a liar I am," and then introduced the commander of the U. S. Army, who, I am glad to say, was kindly received this time. Following the precedent thus set I shall ask Mr Champ to get up and say a word; if he cannot say a word, let him get up and show what a good-looking fellow he is, and then turn around and sit down.

A POLAR BEAR STORY—MR W. S. CHAMP

*Mr President, Ladies and Gentlemen:*

I indeed feel greatly honored to be present this evening, and I will say that I have a very high feeling toward our worthy President, for I am a member of the National Geographic Society. I feel very kindly toward him for affording me an opportunity to pay tribute to himself, Mr Grosvenor, and the Executive Committee of the National Geographic Society for their hearty cooperation and their assistance in equipping the Ziegler expedition with such a worthy representative as Mr W. J. Peters. (Applause.) In addition to Mr Peters, there was also another member attached to the expedition who is also a member of your Society. I refer to Mr Russell W. Porter, and I am proud to say, gentlemen, that these two men, assisted by a few others, accomplished a great deal of work under the most trying conditions. They have succeeded in doing work that I am sure you will find to the credit of the National Geographic Society, as well as to the Ziegler Polar Expedition. As regards Mr Fiala, it is a great pleasure for me, as the representative of the late Mr Ziegler, to pay tribute to his manliness, and I feel that I am justified in saying that he carried out, under the existing circumstances, to the very best of his ability, the sacred trust. They encountered very trying conditions; they were unfortunate in the loss of the vessel with a very large portion of their supplies; they had high temperatures to contend with which made sledging very difficult. Considering all things, I feel that they have done their duty.

I feel like asking your indulgence in listening to a little story, an incident which happened on board our relief ship this year. Today there is in your zoological park a small bear called "Buster," a polar bear. This member was captured by the relief ship and was presented to the National Zoological Park. I want to tell you in a few words the story of his capture. To me it appeals strongly, as it occurred after we had been in the pack about 20 days, or about 150 miles into the pack. We were enveloped in a very dense fog for three days, and when the fog lifted on the skyline we noticed a very large bear with a young cub. Everybody on board ship was very quiet when we went into the pack, though we knew there was nothing to fear and we waited to see what these bears would do. As a sportsman, I want to say there is no sport in killing a polar bear; they come right up to the ship; they do not know what a human being is, and as a result of their hunger and curiosity they come right up to you; this bear had evidently been hunting for food for several days. She encircled the ship entirely and gradually worked her way up to the ship. In the meantime, the doctor who was on board and one of the harpooners and myself went on the ice and crawled up toward the bear behind a huge cake of ice, and finally dispatched the old bear. As a usual thing, when a mother is shot, the cub will run away, but in this instance the young bear sat over the mother and fought us off. We fought her with our rifles and I finally sent the harpooner back to the ship for more ropes and more men. We lassoed the cub and brought it to the ship, and in its efforts to get back to its mother

it very nearly bit its tongue off. We made it fast to the deck, and that was about 6 o'clock in the evening. About 9 o'clock the little bear was suffering so from distress that finally I told the captain if he would shoot it it would be a great relief, but I didn't want him to shoot it while I was on the deck or on the ship. I was going down the gangway when the thought struck me, if I can get the skin of the mother to this cub, possibly it will quiet her. I went on deck and told the captain to get the skin of the mother, and the little cub jumped on the skin and fell asleep. It slept for about 20 hours; the only sign of life in the cub was the twitching of its muscles. About three days after that I was standing watching the cub; its tongue was so swollen that it could not eat anything; it took its mother's skin and turned it over and started eating the blubber, the fat off of its own mother. It lived for eight days in that way. After that we put it in a cage, took the mother's skin away and brought it to New York, and shipped the cub to the park here and that little bear is now in Washington. I thank you, ladies and gentlemen. (Applause.)

### MEMBERS AND GUESTS PRESENT

The Arctic was also the subject of an address by Mr Walter Wellman, who recited an incident of his dash for the Pole. Another distinguished Arctic explorer and one of the founders of the Society, Brigadier General A. W. Greely, U. S. A., made a brief address, in which he spoke of the era of peace among nations, and the evening's entertainment was brought to a close with a benediction by Representative Burton of Ohio, who, on behalf of its guests, wished the Society Godspeed in its work.

Those present at the dinner were:

Lady Durand and Miss Durand, Representative and Mrs James R. Mann of Illinois, Secretary of War and Mrs Taft, the Ambassador from Brazil and Madame Nabuco, Mr Eki Hioki, Chargé d'Affaires of Japan; Senator Perkins and Miss Perkins of California, Mr Fiala, leader Ziegler Polar Expedition, and Mrs Fiala; Henry G. Bryant, president Geographical Society of Philadelphia; Mr Crist, Mr Shaw, Baron von dem Bussche-Haddenhausen, counsellor and secretary of the German Embassy, and Baroness von dem Bussche-Haddenhausen, Professor Libbey of Princeton, Senator and Mrs Thomas Martin of Virginia, Representative Lamb of Virginia, Mr Champ, Mr Peters, Mr and Mrs Walter Wellman, Mr and Mrs John B. Larner, S. B. Hege, Representative and Mrs Joseph W. Babcock of Wisconsin, Representative and Mrs Sydney Bowie of Alabama, Representative Theodore E. Burton of Ohio, Representative and Mrs Burleson of Texas, Mr and Mrs Ernest G. Walker, Mr Frederick Emery, Representative and Mrs Charles F. Scott of Kansas, Mr Edgar G. Snyder, Senator Newlands of Nevada, Mr Lloyd C. Griscom, American Minister to Japan, and Mrs Griscom, Representative and Mrs William Alden Smith of Michigan, Senator and Mrs Clarence D. Clark of Wyoming, Mr and Mrs George Rouzer, Representative and Mrs Henry C. Adams of Wisconsin, Mr Charles Denby, Third Assistant Secretary of State, and Mrs Denby, Gov. Wright of the Philippine Islands, Mr Rennie, secretary of the British Embassy; Mr R. N. Oulahan, Mr and Mrs Theodore W. Noyes, Maj. Joseph E. Kuhn, Representative and Mrs Graff of Illinois, Mr and Mrs Rudolph Kauffmann, Miss Lilian Whiting, Mr Albert F. Ferguson, Linnie M. Bourne, Dr W. Duncan McKim, Mrs McKim, Professor and Mrs Bigelow, C. Heurich and Mrs Heurich, Representative F. W. Mondell of Wyoming, J. T. Hendrick, Victor H. Olmsted, William Simes, Mr and Mrs F. H. Bethell, Dr Arnold A. Hague, Rev J. A.

Aspinwall, Mr and Mrs John Joy Edson, General William Crozier, Crosby S. Noyes, F. A. Richardson, H. E. Waemickey, John Holmes Magruder, Thomas Edwards, Jr., and Mrs Edwards, Major Achilles Pederneiras and Mrs Pederneiras, Col. Henry F. Blount, Martin A. Knapp, President of the Interstate Commerce Commission; John Cassels, Miss Anna Campbell, Claude N. Bennett, Col. N. Raspopoff, J. W. Titcomb, Samuel Spencer, president Southern Railway; Eliza R. Scidmore, Mr and Mrs A. B. Browne.

President and Mrs Willis L. Moore, Mr and Mrs H. E. Williams, Frank Sutton, Gen. and Mrs J. C. Bates, J. Hubley Ashton, Mr and Mrs J. L. Davenport, Simon Newcomb, Mrs Elizabeth S. Moore and Miss Moore, Judge Thomas H. Anderson, Gena Russell Harding and Mrs. King, Mr and Mrs Henry Gannett, Marvin F. Scaif and Mrs Scaif, Mr and Mrs T. H. Aldrich, Mr and Mrs Wm. H. Baldwin, Dr and Mrs David T. Day, Lewis Jordan, Mr and Mrs H. K. Fulton, Mr and Mrs Andrew B. Graham, Mr and Mrs George B. Welch, Dr and Mrs George F. Becker, Prof. A. J. Henry, Dr and Mrs Chas. E. Stone, Gen. A. W. Greely, Mr and Mrs A. S. Worthington, Mr and Mrs O. P. Austin and Miss Austin, Mr and Mrs Odell S. Smith, Mr and Mrs Alexander Britton, S. F. Emmons, Prof. G. B. Garriott, Frank G. Carpenter, Mrs L. McKee Rice, Col. Myron M. Parker and Mrs Parker, Mr W. J. Boardman and Miss Boardman, Gist Blair, James Lowndes, Walter W. Tuckerman, Colonel Dunwoody, Charles P. Neill, Commissioner of Labor; Mr Charles J. Bell and Mrs Bell, Mr David G. Fairchild and Mrs Fairchild, Joseph H. Bryan, Mr Gilbert H. Grosvenor and Mrs Grosvenor, Byron Andrews, Dr J. Franklin Crowell, Major Casey and Mrs Casey of Boston, John McElroy, Maurice Joyce, George H. Judd, Public Printer Stillings, John T. Granger, Warren Mitchell, John La Gorce, Miss Darby, Mrs. William Morgan Shuster, Mr H. T. Dougherty and Mrs Dougherty, H. W. Seymour, Miss Alisan Wilson, Gen. Anson Mills and Mrs. Mills, Mr and Mrs Ralston, Prof. Angelo Heilprin of Philadelphia, Mr Alfred H. Brooks and Mrs Brooks, Fred W. Carpenter, Representative Irving P. Wanger of Pennsylvania, and Representative J. M. Miller of Kansas.

The committee in charge of the arrangements for the dinner included Willis L. Moore, President; Thomas H. Anderson, Charles J. Bell, George Dewey, John Joy Edson, A. W. Greely, Gilbert H. Grosvenor, Martin A. Knapp, S. N. D. North, Theodore W. Noyes, Gifford Pinchot, and Eliza R. Scidmore.

### A NEW DEPARTMENT

BEGINNING with our new volume, we shall conduct a correspondence department in this magazine. Questions from members of the Society who want information on matters of a geographic nature will be cheerfully received and answered as far as it is possible for us to do so. It is hoped that not only those members who are seeking information will make use of the new department, but also those members who have new or interesting facts to communicate. The membership of the National Geographic Society is so large that practically every corner of the United States, and, in fact, every corner of the globe is being watched by some member. Many of them, in their daily life, are seeing things which would be of supreme interest to the great body of our membership. It is not necessary that communications sent to us be long, in fact it is preferred that they should be as concise and brief as practicable, and illustrated whenever possible. Often a member will take or pick up a photograph which in itself will tell a story with only a line of text.

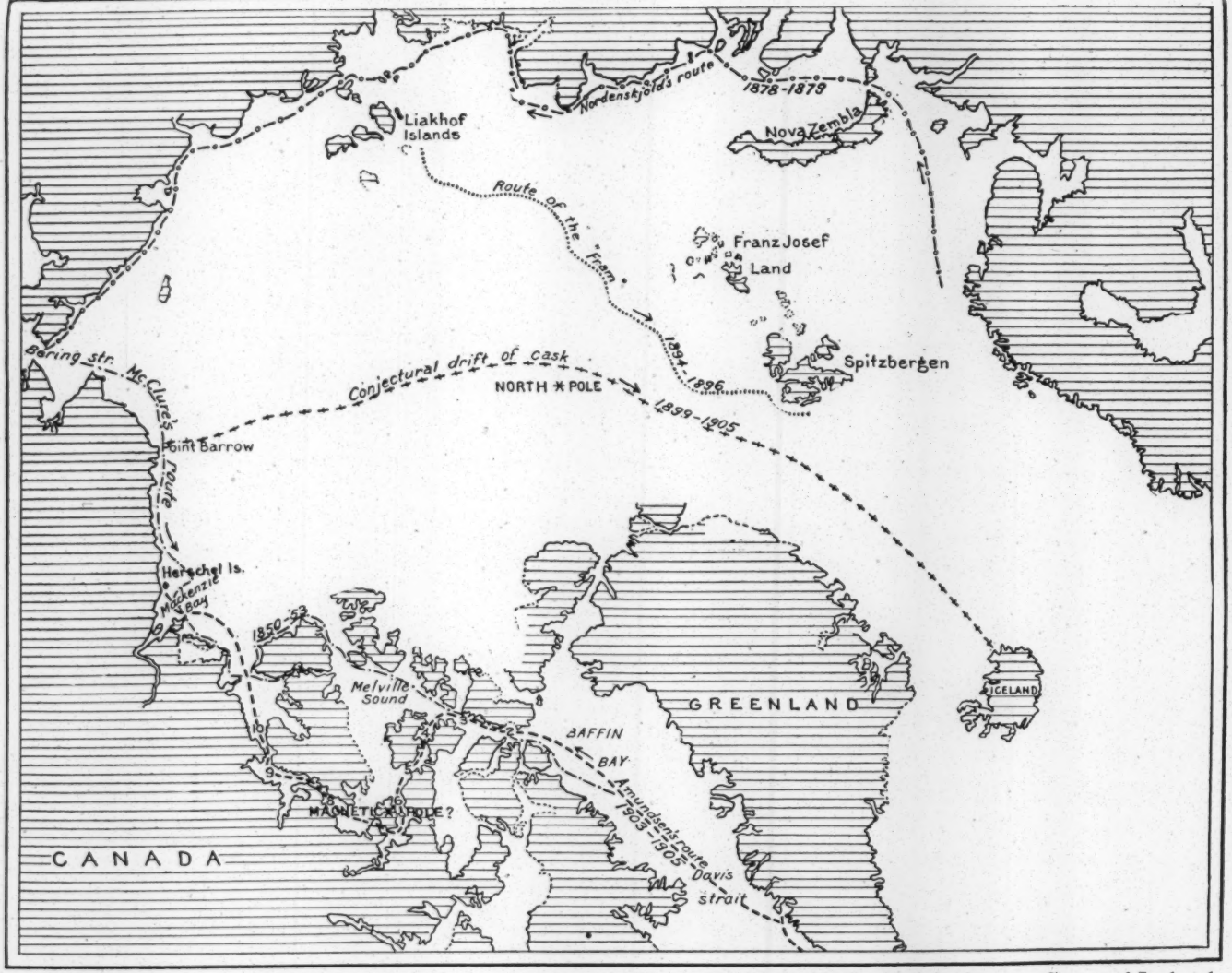
### A MODERN VIKING

ROALD AMUNDSEN, the Norwegian who has just accomplished the Northwest Passage from Europe to Alaska, has performed a feat which the explorers of England and Scandinavia attempted in vain for many centuries. Scores of expeditions were lost, and hundreds of brave men perished in the endeavor to do what Amundsen in a walrus sloop, equipped with a small gasoline engine, has succeeded in doing. The old mariners fought for the Northwest Passage because they believed that it would prove a short commercial route between the East and West. The English Parliament had a standing offer of $50,000 to the man who first made the passage. The offer stood for nearly one hundred years, until McClure, in 1853, won the prize by going from Bering Sea eastward to Europe. Nobody except Amundsen has ever before made the passage from East to West. Henry Hudson was searching for it when his crew mutinied and thrust him into a tiny boat, and left him to perish on the lake which bears his name. Sir John Franklin was also seeking it when he and his 220 men disappeared, but Lieutenant Gore pointed out the opening which Amundsen has used. The route which Amundsen has definitely located will be of considerable use to whalers, who are venturing further and further north each year, but it is unlikely that anything else will come of it.

But Amundsen's achievement has much more than a romantic value. For two years he has been conducting magnectic observations in the vicinity of the north magnetic pole which Sir John Ross claimed to have located in 1831. He has now definitely fixed the position of this pole in King William Land, not far from the position ascribed to it by Ross. The new knowledge which his observations will give us of the character and influence of the magnetic pole will prove of immense value in the study of magnetic variation which is now being conducted by several observatories, particularly by the U. S. Coast and Geodetic Survey and the Carnegie Institution, under the direction of Dr L. A. Bauer. Magnetic deviation of the needle is one of the principal uncertainties with which mariners have to contend. It is so important that the Carnegie Institution recently established a special department to help the magnetic survey of the world, purchasing a special ship for work in the Pacific Ocean. Terrestrial magnetism is a mysterious force. Nearly every year we have a magnetic storm which interrupts our telegraph wires for several hours. Whence it comes or what it is we know not. The eruption of Mont Pelée was accompanied by magnetic waves which were simultaneously recorded in Hawaii, Alaska, United States, and Europe. All this makes the magnetic work of Amundsen particularly valuable, and we must remember that that was the principal object of his expedition.

Amundsen left Christiania in June, 1903, taking only seven men with him in his sloop the *Gjoa*. His route lay up Baffin Bay, and then through Lancaster Sound, Barrow Strait, Peel Sound, James Ross Strait, Rae Strait, Simpson Strait, Dease Strait, Coronation Gulf, and Dolphin and Union Straits to King Point, on the western side of the Mackenzie River delta.

At the Mackenzie River, where he arrived in September, 1905, he found some whalers who were caught in the ice. They told him that the political situation between Norway and Sweden was strained, and, being anxious to learn what had happened as well as to hear from his family, he determined to march south to the Yukon telegraph line. It was a 700-mile trip on snow shoes; it had been made only once or




Outline Map to show Amundsen's Route; also Conjectural Route of the Drift Cask picked up on Coast of Iceland

1. Baffins Bay
2. Lancaster Sound
3. Barrow Strait
4. Peel Sound
5. Franklin Strait
6. James Ross Strait
7. Simpson Strait
8. Dease Strait
9. Consolation Gulf
10. Dolphin and Union Straits

twice before by trappers, but he calculated he could get there, spend a few weeks at the station, and return to his ship before spring. So with Captain Mogg, of the whaler *Bonanza*, which had been stranded on the beach, he set out.

Four weeks later, on December 5, the people of Eagle City were startled to be told by one of two white men who came in on snowshoes that he had come from Europe via the Arctic Ocean. To cross in the dead of winter the immense expanse of ice stretching from Eagle City to the mouth of the Mackenzie alone seemed impossible, and not until the outside world identified him by telegraph would they believe that it was Amundsen.

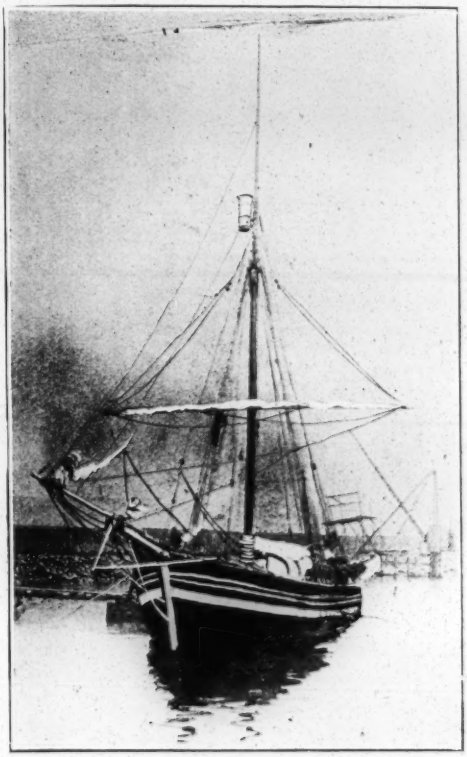
Amundsen has announced that about the middle of January he will return to his ship at the Mackenzie River. He proposes to bring her through Bering Strait to San Francisco, and then return to Christiania by way of Cape Horn, thus completely circumnavigating the American continent. In arctic history Amundsen will rank with Greely, Nansen, and Peary.

### DRIFTING ACROSS THE POLE

TWO of the drift casks which were set loose in Bering Sea at the instigation of President Henry G. Bryant, of the Geographical Society of Philadelphia, and of Admiral George W. Melville some years ago have been recovered. One of them was found on the coast of Iceland, 2,500 miles from the point where it was cast overboard on the Alaskan coast. In its tortuous course it probably traveled 4,000 miles. Its drift across the Arctic Ocean proves once more the existence of an Arctic current flowing from Bering Sea across the north polar region.

Fifty spindle-shape casks were constructed from designs submitted by Admiral Melville and were sent north on United States revenue cutters and whaling ships to Bering Strait and there dropped overboard in 1899, 1900 and 1901.

Each cask was numbered and contained a message in four languages, requesting the finder to notify the Geographical Society of Philadelphia if the cask turned up. In reporting the recovery of the casks to the Society, Mr Bryant said:



Courtesy of the New York Times

Amundsen's Ship, *Gjoa*

"An examination of the first record shows that it was cast adrift by Captain F. Tuttle, of the U. S. R. C. *Bear*, on August 21, 1901, about eighty-five miles northwest of Wrangel Island and recovered by Captain A. G. Christianson on August 17, 1902, near the mouth

From a photo by Roald Amundsen, courtesy New York Times

Eskimo Women from Cape Fullerton, the Extreme North End of Our Continent

Russian Soldiers

From "Russia under the Great Shadow," by Luigi Villari. James Pott & Co. Copyright. This excellent book on Russia was reviewed at length in our last number by General A. W. Greely, U. S. A.

of Kolyuching Bay, on the Siberian coast. It is evident that this particular cask did not get a good start, and in the one year less four days of its drift the course it followed of 380 miles to the southeast was probably influenced by local currents which exist near Bering Strait.

The other representative of this silent fleet which has been traversing the desolate wastes of the Arctic seas had a longer voyage and doubtless a more eventful history. Placed on the flow ice northwest of Point Barrow, Alaska, in latitude 71 degrees 53 minutes north and longitude 164 degrees 50 minutes west by Captain B. T. Tilton, of the steam whaler *Alexander*, on September 13, 1899, it was recovered one mile east of Cape Rauda Nupr, on the northern coast of Iceland, on June 7, 1905.

More of the casks have come through, but have not been found, while others, no doubt, have been found, but not reported. There is no telling how long the cask found on Iceland drifted about in open water before it was cast ashore.

Photo by Frank G. Carpenter

A Group of Russian Peasants

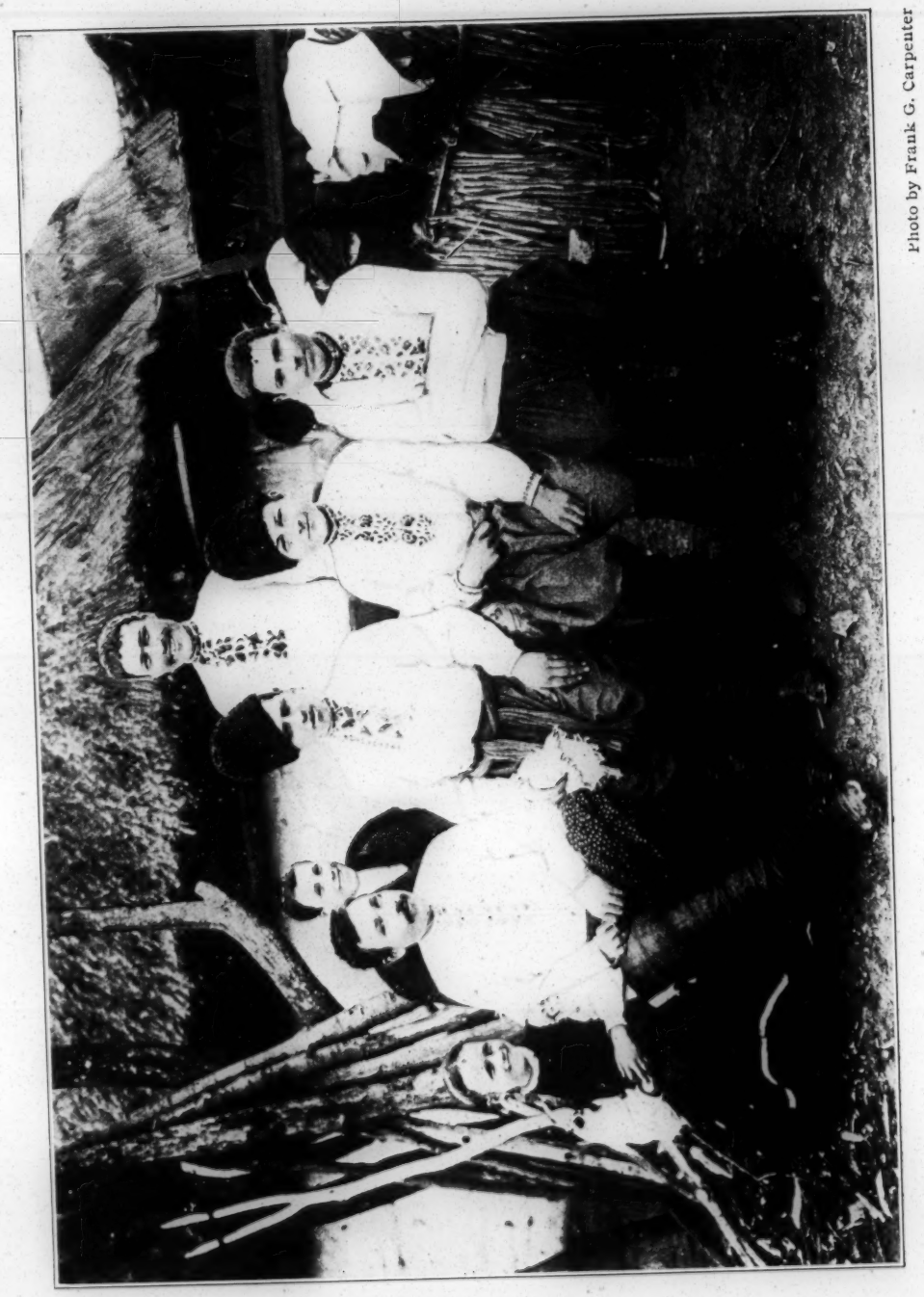
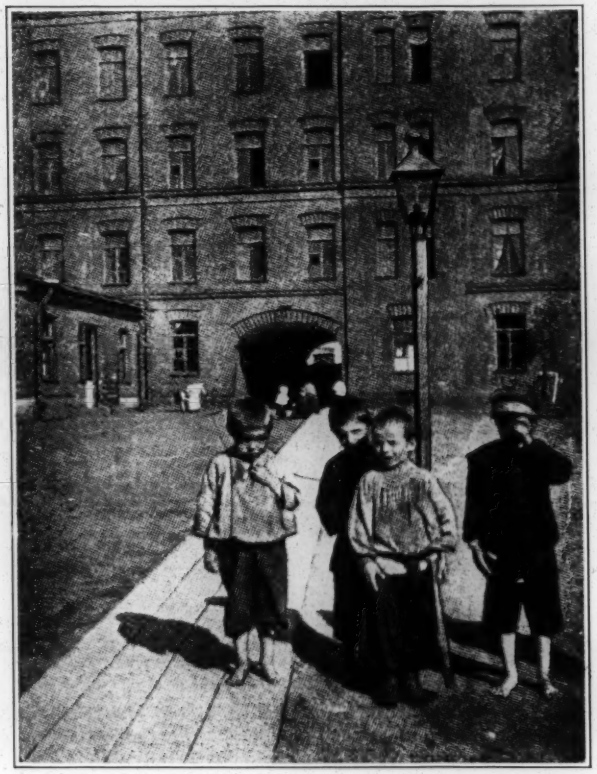


Photo by Frank G. Carpenter

A Group of Young Russian Peasants

Types of Russian Workingmen

From "Russia under the Great Shadow," by Luigi Villari. James Pott & Co., New York. Copyright. The several Russian pictures are chosen to illustrate types of the Russian people. In the political and social troubles which have overwhelmed that country we must not forget that the Russian people are a strong, stalwart, and brainy race who are fully capable of working out their own salvation.



Factory Children in South Russia

"Russia under the Great Shadow," by Luigi Villari. James Pott & Co. Copyright.

### THE BLUE CRAB

FOR rapidity of digestion the hard-shelled or blue crab is probably unsurpassed. The crab disposes of its food so quickly that its stomach is usually found to be perfectly empty within a few minutes after having had a full meal. The common assertion of fishermen, however, that the crab does not retain its food in its stomach at all, has been disproved by dissection, says Mr W. P. Hay in a special study of the life history of the blue crab which has been recently published by the Bureau of Fisheries. A large hardshelled crab if captured and held by one leg will snap the limb off and make its escape. The break always occurs at the same point across one of the segments near the base of the leg and is a protection of nature to prevent the animal from bleeding to death. If its leg is injured it will drop it off in the same way. At the first molt after a limb has been cast off the new limb appears as a small bud in which all the missing segments may be found coiled in an elongate spiral. At the next molt the segments straighten out and the new limb, except for its size, looks like the one which was cast off. Another molt, possibly two, will be sufficient to restore the limb to its full size. Regeneration of the limbs will not take place more than two or three times.

# GEOGRAPHIC LITERATURE

**The Effects of Tropical Light on White Men.** By Major Chas. E. Woodruff, Surgeon U. S. Army. Pp. 358. New York and London: Rebman Company. 1905.

Dr. Woodruff advances here a startling theory that light is a curse. He is keenly aware that he is antagonistic to all the teachings of the medical profession. Hence he girds on his scientific armor in the first part of his volume, and treats very technically of the effects of light upon life, both plant and animal, finally reaching the basis of his thesis, that the color of man's skin is directly proportioned to the "intensity of the light of the country to which his ancestors approved their adjustment by centuries or millenniums of survival in health and vigor." Thus we find all gradations of color, from the black in the tropics to the blonde in northwestern Europe. It is nature's method to guard against the destructive rays of the sun by layers of pigment over the body.

Having found his hobby, he rides it hard. Life in cities is injurious, not because of little light, as we have been generally taught, but because of the reflection from the walls and pavements. The farmer is guarded by the trees and vegetation. We are fanatics demanding so many windows in our schoolrooms. The less light, the less deaths from Florida to Vancouver. Instead of swearing at the clouds and rain the people on the North Pacific coast of our land should thank God that they are protected from His sunshine.

Of the four great races, black, yellow, olive, and blonde, each has its zoological zone. Only death awaits the one that crosses its boundaries, northward or southward, but they can migrate along the parallels of latitude as they desire. Armed with his theory, Dr Woodruff confidently solves the greatest problems. The half-breeds disappear because they are too dark for the upper latitude and not dark enough for the lower ones. There is no need for alarm over the race issue among us, as the negro is doomed to extinction. The same sad fate awaits the white people who go too far southward. It is an absurdity to speak of white being acclimatized in the tropics, as they can never fit themselves to the warmth of those regions. His explanation of our nervousness as compared with Europe is very pat. We have got too far southward of our original home and are thus leading an existence unnatural for us. We shall all become brunettes unless constantly infused with the blonde from Europe. Our mothers and those in New Zealand cannot nurse their babies, because our race is degenerating, paying the penalty for migrating toward the equator.

But Dr Woodruff looks deeper than the skin. With him difference of color carries grades of intellect. The blondes are the brainiest, as they developed under the harsher natural conditions that would produce the best type by selection. It was early waves from that dark corner in Europe that made Greece and Rome the pagan stars of antiquity, and those nations declined when the masterful northerners became extinct under the fiercer rays of the sun. They have kept up this spirit, and today rule large stretches of the tropics, but can never exterminate those black and brown subjects, as the heat there saps the blonde vitality in three generations. These later blondes are largely Protestants, because that system means independence of thought, while southern Europe is Catholic and brunette. The United States is in the Semitic or olive belt, and we shall become mostly brunette, but the superior blonde will always be our captains.

XUM

Even our theaters in large cities show the superiority of the blonde in the audience. The lower class houses are filled largely with brunettes every evening, while the better ones appeal to the blonde.

But there are gaps in Dr Woodruff's logic. He is confused on the origin of the blondes. He does not explain why the Japanese are yellow, though they live up in the olive latitudes. As an offset he is very ingenious in accounting for the golden hue of the Eskimo, on the ground that they receive extra light from the glare of the snow. Again he flies in the face of authority in denying the existence of Aryans in India today, but not a shadow of proof does he offer for his flat contradiction of the general view. He speaks of the negroes suffering so much from pulmonary troubles, oblivious of the fact that in slavery days they were almost free from those diseases. He points out the deterioration of families in Maryland, but says nothing about the vigor of those in Virginia. He calls attention to the weakness of physique in the lower south, forgetting the strength and virility of those same people forty years ago in the Civil War.

It is a most stimulating, even disquieting, investigation. Traditions are forcibly assailed, conclusions that are almost axioms among educated people are contemptuously tossed aside. Dr Woodruff may be right in his iconoclasm, but he should be more logical and more systematic in the arrangement of his evidence.

C. MERIWETHER.

**Extinct Animals.** By E. Ray Lankester, M. A., LL.D., F. R. S. Illustrated. Pp. 331, 218. New York: Henry Holt and Company. 1905.

This book is the best popular description of an obscure realm of science in existence. With the simplicity of language, and clearness of arrangement, suited for lectures to a juvenile audience, Mr Lankester combines enough technical knowledge to make his subject highly interesting to educated adult readers. Besides entertaining accounts of animals lately extinct, we have representative types of the great families, such as elephants, horses, reptiles, birds, and fish. There are more than 200 well-executed illustrations and a most comprehensive index. C. M.

**In the Land of the Strenuous Life.** By Abbe Felix Klein. Illustrated. Pp. 387. Chicago: A. C. McClurg and Company. 1905. $2.50 net.

Just about three years ago this eminent professor from the Catholic University of Paris reached America, and then for the next nine months or so was very active in traveling over the upper eastern half of the United States and a part of Canada, observing life among us and gathering data for the impressions he has given us in the above volume. Naturally for an ecclesiastical teacher, two special fields interested him—religion and education. Remarkably for a student, he has embodied very interesting accounts of business and industries. Most properly he enlarged considerably upon his Washington experiences, and notably his acquaintance with President Roosevelt.

He is very cheerful about the work and prospects of his own church in the United States. He finds here a more earnest spirit than in Europe among all nationalities except the Italians, who are very slack in their faith. He has much praise for our schools and colleges. There is a very lively and enthusiastic account of a visit he made to the colored high school of Washington. He is really amazed at the progress made by that race in learning from books, but he is very profound in his reflections upon the destiny of those dark people in this land. There is no short road to culture for them, as there was

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Harbor of Rio

From "A Commercial Traveler in South America," by Frank Wiborg.

none for the white, and Prof. Klein declares that they will have to go through the painful centuries of evolution before they can reach the standard of their white fellow-citizens. He emphasizes very strongly the industrial side of training for them, though he thinks the higher courses are necessary for a small class of picked leaders.

He has a very keen eye. In the rush and roar of manfacturing in Pittsburg, he discovers that the farm must produce the men who are to manage the great throbbing activities of our large cities.

A whole chapter is devoted to Mr Roosevelt, one of whose books really furnishes the title for Professor Klein's discourse. He is naturally full of admiration for this great representative of America, but makes one mistake of fact when he refers to him as at one time a member of Congress.

From cover to cover, the pages hold the closest attention. Here we have the lively opinions of a genial foreigner, mixed with as few errors as could be expected from a short trip. There is nothing of patronage, nothing of captious criticism, but the frank earnestness of a man who looks with clear vision upon what he comes across. He does not bubble over with praise of us, but he realizes what an immense brother we are among the countries of the world. C. M.

**The Land of the Rising Sun.** By Gregoire De Wollant. Translated by the author with the assistance of Mme. De Wollant. Pp. 400. 5½ x 8 inches. New York: Neale Publishing Co. 1905.

"The Japanese Archipelago or Dai-Nippon (Nihon) stretches like three garlands of a vine along the coasts of Siberia and northern China" are the opening words of an extremely inter-

esting and comprehensive book on Japan by a Russian. Mr De Wollant, Chargé d'Affaires at Mexico, was stationed for some years in Japan, so that he had excellent opportunity of studying the country, the people, and their customs, and was able to visit many places not frequented by tourists. He speaks of seeing beautiful camellias "which do not resemble much our poor hothouse plants, for in Japan the camellia is a large tree with a thick trunk, and there are whole forests of them. The camellia is so plentiful that it is used as firewood." Speaking of a dinner given him by the governor of Kumamoto, he says: "The menu was varied and plentiful. With the champagne the governor made a speech. He asked our pardon for the bad country meal. That is always the order of things in Japan, and it is remarkable how the Japanese always speaks of himself and of all which belongs to him in such a deprecatory manner. He always speaks of his tumbled-down house, of his business as bankrupt, and of his wife as stupid." On the whole Mr De Wollant's account is fair and impartial, and although we may differ with him in his conclusions and his account of the differences between his country and Japan, we are glad to hear the Russian side of the controversy. In conclusion he says: "If they (Japanese) would succeed in breaking this power (Russia) or even weakening it, and thus raise the prestige of Japan in all Asia, that would already be a great result. Then would follow the turn of other nations, for has not Germany, Shantung; England, Wei-hai-wei and Hongkong, etc. Let there be no illusion! We are living through a significant moment of human history and are contemplating the first act of the struggle of Asia against the European spirit." The one fault of the book is the absence of an index. E. M. G.

**A Commercial Traveler in South America.** By Frank Wiborg. Illustrated. New York: McClure, Phillips & Co. 1905.

This little book contains a description of a flying visit across the Isthmus of Panama and along the coasts of South America.

In Valparaiso "the conductors are women. It seems that during the war against Peru such a large percentage of men and youths were drafted into the army that the women who were left alone had to do men's work as best they could. As conductresses they proved so satisfactory and honest that they have been retained ever since. The platforms of the cars are all furnished with a small seat for the conductress."

**With Flashlight and Camera.** By C. G. Schillings. Translated and abridged by Henry Zick. Illustrated. Pp. 434. New York: Harper & Brothers. 1905.

During two journeys into Central and East Africa, Mr Schillings succeeded in making more than a hundred telephotographs of birds and animals largely by flashlight. The reproductions are of value and interest both to hunters and students. Those of lionesses stalking and springing on their prey are the most striking. Twelve species of animals are represented, the most valuable studies being of elephants, lions, the hippopotamus, and rhinoceros. The translation scarcely equals the literary qualities ascribed to the original. A. W. G.

**The Indian Dispossessed.** By Seth K. Humphrey. Illustrated. Pp. 298. 7⅝ x 5 inches. Boston: Little, Brown & Co. $1.50 net.

No one can read without indignation this story of repeated injustice to peaceful reservation Indians. Unwise if not corrupt legislation, harsh, il-

liberal enforcement of the law, sharp business practices—such are the means and methods herein recited. Painful as are the facts, it is unreasonable to inculcate, as does the author, a "persistent distrust of Congress." The volume should stimulate public demand for equitable treatment, to which the present Indian administration is fully pledged. A. W. G.

## OBITUARY—VON RICHTOFEN

IN the death of Ferdinand Freiherr von Richtofen (1833-1905) geographical science loses one of its most distinguished representatives. A student of Carl Ritter, Richtofen has been actively engaged in geographical investigation for half a century. His activities have been remarkable, covering the Austrian mountain ranges, Ceylon, Java, Formosa, Siam, the Philippines, Japan, China, and California. While all his works are marked by acumen, thought and clearness, his general fame will rest on his great memoir on the geomorphology, paleontology, geology, and world relations of China and Inner Asia. Unfortunately Richtofen left unfinished this great study of one of the richest and least known regions of the world. His services at the head of the Berlin Geographical Society, and as President of the Seventh Geographical Congress, Berlin, 1899, made him personally known to many of the members of the National Geographic Society. In his high position as Rector of the University of Berlin he crowned with glory a career as explorer, investigator, and teacher. He was always a leader, following intuitively lines of thought and research productive of definite and reliable results.

To intellectual ability were conjoined in Richtofen highest qualities of moral and social order. His charm of manner, graciousness of character, courtesy of intercourse, and considerate treatment of associates endeared him to every one favored by his acquaintance or friendship. As a man and scientist he added much to his age, and leaves to the future high standards for incentive and emulation.

A. W. G.

## CORRESPONDENCE

NEW YORK, *December* 14, 1905.

*Editors National Geographic Magazine.*

DEAR SIRS: Will you kindly inform me where I can get data regarding Lower California? (I refer to the Mexican territory of that name.) The data that I wish is in regard to the soil, its natural irrigation, climate, and such other facts as it is necessary to know for colonization purposes.

I would thank you very much to refer me to any publication that will give this data, or to any persons to whom I could apply who might be conversant with that country.

Very truly yours,

X. Y. Z.

Lower California has no inhabitants to speak of except near the United States border. Americans own most of the territory. Proposed colonists would have to consider very seriously the question of water. The Colorado River, which flows through the territory, was very recently diverted, and almost all of the water, or 90 per cent, is now flowing into Salton Sea. One year ago Salton Sea was a salt bed (dried-up lake) where manufacturers plowed up salt. It has now become a great lake, 800 miles square, and is rising at the rate of one inch a day; the imperial value of California itself is threatened. This diversion of the Colorado River was due to the bungling of some engineers (not government engineers) who tried to divert the channel of the river. The river got away from them and started down for Salton Sea, a former lake, refusing the direction desired by the engineers. They are having quite a time trying to get the river to flow back to the ocean, and may or may not succeed. Meanwhile Lower California is cut off from most of its water.

The Colorado River bottom lands, just across the Mexican territory, are wonderfully fertile; eight crops of alfalfa can be obtained yearly. Their large value depends of course on the annual inundation of the river, and if this inundation is to be prevented by the diversion of the Colorado, the lands become of little value. Not much is known of Lower California except in the region of the Colorado River delta, where, as has been said, the land

Plowing up Salt in the Sea of Salton, which has now Become a Vast Lake

The bed is about 300 feet below the level of the ocean, and forms the lowest part of the Imperial Valley of California, which centuries ago was a part of the Gulf of California.

is wonderfully rich. The rainfall throughout Lower California is sparse. Practically nothing of real value has been written on the country. Mr J. B. Lippincott, engineer Reclamation Service, Los Angeles, California, probably knows more about the country than any one else.

ST LOUIS, MO., *November* 21, '05.

*Editors National Geographic Magazine.*

DEAR SIRS: Is not the statement by Sir William Wharton in the November number, page 488, that the circumference of the earth is 21,600 miles, in error? Is it not about 25,000?

Yours truly, A. W. D.

The equatorial circumference of the globe is approximately 21,596.11 geographical or nautical miles or 24,900 statute miles. The polar circumference is approximately 21,534 geographical or nautical miles or 24,818.64 statute miles.

GALLUP, NEW MEXICO, *December* 20, 1905.

*Editors National Geographic Magazine.*

DEAR SIRS: Will you kindly advise me of the name of the most complete and reliable book or books on geology?

Yours truly, G. MULHOLLAND.

Joseph Le Conte: "Geology." New edition, edited by H. L. Fairchild. 1903. D. Appleton & Co. $3.00.

T. C. Chamberlin and R. D. Salisbury: "Geology." 2 vols. Henry Holt & Co. 1904. $4.00.

PLAINFIELD, N. J., *December* 7, 1905.

*Editors National Geographic Magazine.*

DEAR SIRS: Will you kindly inform me what is the highest latitude that has been reached by any explorer in search of the North Pole?

Yours truly,

ERNEST R. ACKERMAN.

Abruzzi, 86° 33′, 1900.
Nansen, 86° 14′, 1895.
Peary, 84° 17′, 1900.
Greely, 83° 24′, 1882.

## GEOGRAPHICAL SQUBS

First Explorer: "We are in terrible straits. The supply of champagne is reduced to 13 cases, the cigars are nearly gone, and the mineralogist is half dead with gout." "Cheer up, old man, the third relief party is due this month."—Life.

"Which is farther away," asked the teacher, "England or the moon?"

"England!" the children answered quickly.

"England?" she questioned. "What makes you think that?"

"'Cause we can see the moon and we can't see England," answered one of the brightest of the class.

Little Rob was the prize geographer of his class; that is, he could locate cities and bound countries with great glibness. He could draw the most realistic maps, printing in the rivers, mountain ranges and cities from memory. Rob considered geography purely in the light of a game, in which he always beat, but he never associated it with the great world about him. Rivers to him were no more than black, wiggly lines; cities were dots, and states were blots. New York was green, Pennsylvania was red, and California was yellow. Of course, Rob had never traveled. He was born in a canyon near the country school he attended. One day the teacher made the discovery of Rob's idea of geography through the following incident: After vainly inquiring of several of the children where British Columbia is located, she called on Rob, who, as usual, was waving his hand excitedly, wild with the enthusiasm of pent-up knowledge.

"It is on page 68," he declared.

After the roar had subsided the teacher explained that that was only a picture of British Columbia. Then she asked Rob to bound British Columbia.

"Can't, teacher; it's all over the page."

—Success Magazine.

Fred B. Smith, the Y. M. C. A. worker, who has just returned from a trip around the world and who remained in Washington several days last week, tells a good story of Australia. Before he started, he told a friend of his proposed trip and said that he planned to visit Australia last.

"That's good," remarked the friend. "Because an American always feels at home there."

The traveler met another friend in England and told of his prospective visit to Australia.

"Yes, that's fine," was the comment. "An American always feels at home in Australia."

Meeting another friend from this country in India, he stated that he intended to visit Australia and then go home.

"When you get to Australia, you will feel as if you were home," remarked the friend.

"Why is it that Australia is so much like America, as every one tells me?" asked Mr Smith. The friend thought a moment, rubbed his hands together briskly, and replied:

"Well, they brag down there just the same as we do in America."—Washington Star.

# NATIONAL GEOGRAPHIC SOCIETY

POPULAR MEETINGS

National Rifles' Armory, 920 G Street

**January 5**—"Russia and the Russian People." By Mr Melville E. Stone, General Manager of the Associated Press.

It will be remembered that it was Mr Stone who two years ago persuaded the Czar Nicholas to grant freedom from the censor to foreign correspondence from St Petersburg.

**January 19**—"An Attempt at an Interpretation of Japanese Character." By Hon. Eki Hioki, First Secretary of the Japanese Legation.

**January 25**—"The Ziegler Polar Expedition of 1903–1905." By Messrs W. S. Champ, Anthony Fiala, and W. J. Peters.

**February 2**—"Austria Hungary." By Edwin A. Grosvenor, LL. D., Professor of International Law in Amherst College, author of "Constantinople," "Contemporary History," etc.

**February 10**—"A Flamingo City." By Dr Frank M. Chapman, of the American Museum of Natural History. Illustrated.

**February 16**—"Africa from Sea to Center." By Mr Herbert L. Bridgman. Illustrated.

Africa in transition today challenges the attention of the world. Few intelligent Americans know to what extent its possibilities have been developed since Livingstone's day, a development that in rapidity promises to exceed that of North America.

**February 20**—"China." By Hon. Charles Denby, of the State Department, and for many years resident in China.

**February 23**—"The Personal Washington." By Mr W. W. Ellsworth, of the Century Company. Illustrated.

This is not a lecture in the ordinary sense of the word, but it is an exhibition, through the medium of the stereopticon, of the greatest collection of prints, manuscripts, and letters referring to the personal side of Washington ever brought together.

**March 2**—"Our Immigrants: Where They Come from, What They Are, and What They Do After They Get Here." By Hon. F. P. Sargent, U. S. Commissioner General of Immigration. Illustrated.

**March 16**—"Oriental Markets and Market Places." By Hon. O. P. Austin, Chief U. S. Bureau of Statistics. Illustrated.

**March 30**—It is hoped that official business will permit the Secretary of the Navy, Honorable Charles J. Bonaparte, to address the Society on "The American Navy."

**April 13**—"The Regeneration of Korea by Japan." By Mr George Kennan. Illustrated.

SCIENTIFIC MEETINGS

Hubbard Memorial Hall, 8 P. M.

**January 12**—Annual meeting. Reports and elections. "Progress in the Reclamation of the West." By Mr F. H. Newell, Chief Engineer Reclamation Service.

**January 26**—"The Carnegie Institution." By President R. S. Woodward.

**February 9**—"The Introduction of Foreign Plants." By Mr David G. Fairchild, Agricultural Explorer, U. S. Department of Agriculture.

**February 24**—"Hunting with the Camera." By Hon. George Shiras, Member of Congress from 3d District, Pennsylvania.

**March 9**—"The United States Bureau of the Census." By Hon. S. N. D. North, Director.

**March 23**—"The Death Valley." By Mr Robert H. Chapman, U. S. Geological Survey.

**April 6**—"The Total Eclipse of the Sun, July, 1905, as Observed in Spain." By Rear Admiral Colby M. Chester, U. S. N., Superintendent U. S. Naval Observatory.

**April 20**—"The Protection of the United States Against Invasion by Disease." By Dr Walter Wyman, Surgeon-General Marine Hospital Service.

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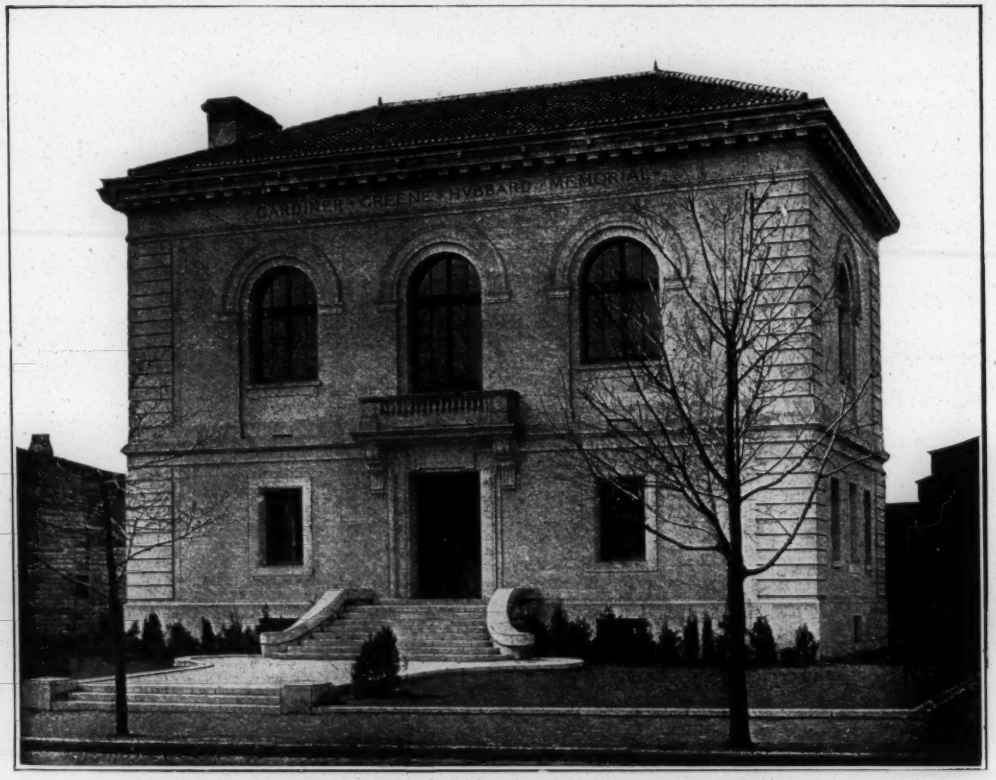


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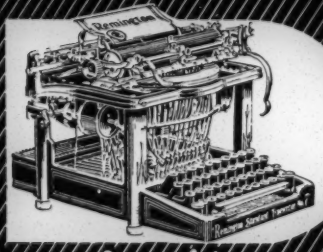


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